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—THE—
BIRDS OF INDIANA,

WITH
ILLUSTRATIONS
OF MANY OF THE SPECIES

PREPARED FOR THE
INDIANA HORTICULTURAL SOCIETY,

AND
Originally Published in its Transactions for 1890.

—BY—
AMOS W. BUTLER,
OF
BROOKVILLE.



The present brochure was first published as an Appendix to the Transactions of the Indiana Horticultural Society for 1890. A few copies have been issued in this form for the convenience of the Author and others, and a limited number of copies of the Transactions of the Society, over and above those taken by its members, will remain in the hands of the Secretary, who will distribute them to applicants, post-paid, on receipt of Fifty Cents per copy. Address W. H. RAGAN, Secretary, Greencastle, Indiana.



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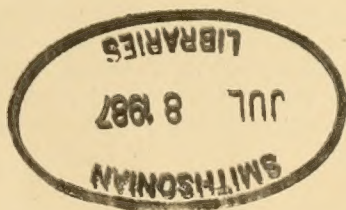
CATALOGUE

OF THE

BIRDS OF INDIANA.

BY

AMOS W. BUTLER.





INTRODUCTION.

At the request of the Secretary of the Indiana Horticultural Society, Mr. C. M. Hobbs, last fall, I presented at the meeting in December, 1891, some remarks upon the birds of Indiana. At the meeting Mr. Hobbs and his successor, the present Secretary, Mr. W. H. Ragan, requested me to prepare a list of the birds of the State, together with brief notes concerning the species mentioned, to be published instead of the notes presented to the meeting, the edition of the volume of the meeting of 1879, containing Dr. A. W. Brayton's "Catalogue of the Birds of Indiana," having been exhausted by reason of the great demand for the work, which far exceeded that for any other volume of the Society's "Transactions." After consenting to undertake the present paper I was, through the courtesy of Messrs. Estes & Lauriat, of Boston, Mass.—the publishers of Coues' Key to North American Birds—enabled to secure, for the purpose of illustrating this work, such cuts as I desired that were in their possession. The U. S. Department of Agriculture, through Dr. C. Hart Merriam, Chief of the Division of Economic Ornithology and Mammalogy, was also kind enough to furnish a cut of the English Sparrow.

In the preparation of this paper I have had available the notes of my own observations, chiefly in the southeastern part of the State, covering the greater part of fourteen years; also, the material which has been put into my hands as curator of the Department of Ornithology of the Indiana Academy of Science. After beginning my own investigations and carrying them on independently for a year, I was favored with the coöperation of Dr. C. Hart Merriam, Chief of the Division of Economic Ornithology and Mammalogy, by reason of which I have been enabled to examine the migration reports, covering the State of Indiana for a series of years. I have also been much favored by the assistance so freely given by Mr. Robert Ridgway, curator of Department of Birds of the United States National Museum, Washington, D. C.; Dr. F. W. Langdon and Mr. Charles Dury, Cincinnati, O.; Mr. Ruthven Deane and Mr. H. K. Coale, Chicago, Ill.; Prof. B. W. Evermann, formerly of the State Normal School, Terre Haute, Ind., now of the U. S. Fish Commission, Washington, D. C.; Dr. A. W. Brayton, Indianapolis, Ind.; Hon. R. Wes. McBride and his son, Mr. H. W. McBride, Elkhart (formerly of Waterloo), Ind.; Mrs. Jane L. Hine, Sedan, Ind.; Mr. E. R. Quick, Brookville, Ind., and many others hereinafter mentioned. In addition to these I have given the authority of many notes in the body of this paper, and have appended hereto a list of the persons who have contributed to the notes at hand from which the present list is compiled. To each of them I desire to express my thanks for the coöperation received and to acknowledge the assistance so kindly given, by reason of which this paper is as complete as it is. I shall be pleased to continue to receive the coöperation of each of those persons to the end that all fragments of knowledge concerning the birds of our State may be preserved.

It has been my purpose not to include within this list any species which has not been taken in the State and not to note any species as having bred unless I am satisfied upon good authority that it has done so. I have added a supplemental list of species, which, from their having been taken near our limits, may, with more or less probability, be expected to be found within the State.

I have not followed the plan of the publication of Dr. Brayton, of which this is the successor and from which many notes have been taken, but have preferred to adopt the form herein chosen, thinking it would be acceptable, because different from anything which has been published concerning the birds of the State. The difficulty has been to condense the mass of notes at hand into the limited space accorded by the Society. It is very much desired, and I trust that we shall have, in the immediate future, a report of proper size, concerning the "Birds of Indiana" and their economic relations.

An extract from the letter of transmission, by which Mr. Sylvester Johnson, President of the Indiana Horticultural Society, accompanies the transactions of the sixteenth annual session of that Society to the Governor of the State, and with which Dr. Brayton opens his letter transmitting his report of the birds of the State in 1880, is worthy a place here, for it expresses our views to-day as well as it did fifteen years ago:

"An abundant supply of timber, especially of evergreens, furnishing, as it does, the natural home and breeding places of many of our feathered friends, would of itself greatly increase and encourage this source of relief to the horticulturist, while many of our worst insect enemies have been driven, by the destruction of their natural forest homes, to take refuge in our orchards. But the birds must be encouraged and protected, while insects as a rule, must be destroyed. They should not, however, be slayed indiscriminately, as many of our best friends are amongst the tiny creatures of the insect world, while there are very few exceptions to the general friendly character of the feathered tribes. These facts, therefore, bring us to a consideration of the importance of a knowledge of the kindred sciences of ornithology and entomology, which it has been the aim of this society at all times to encourage and foster as of vital importance to the horticulturist, and to which we would now call your attention as subjects worthy of legal attention."

True to its principles thus expressed, the Indiana Horticultural Society, coöperating with the Indiana Academy of Science, the State Board of Agriculture and other agricultural associations, memorialized the Legislature of Indiana, at its last session, for the passage of a law for the proper protection of native insectivorous birds, with provision for collecting them for scientific and economic investigation. While not securing the passage of the act just as it was drafted, a bill was passed and signed by the Governor which, in the main, answers the purposes desired, and under which violators, it is to be hoped, will be punished. The following is the text of the law as enacted:

"AN ACT FOR THE PROTECTION OF BIRDS, THEIR NESTS AND EGGS"

[Approved March 5, 1891.]

SECTION 1. *Be it enacted by the General Assembly of the State of Indiana*, That it shall be unlawful for any person to kill any wild bird other than a game bird, or purchase, offer for sale any such wild bird after it has been killed, or to destroy the nests or the eggs of any wild bird.

SEC. 2. For the purpose of this act the following only shall be considered game birds: The Anatidæ, commonly called swans, geese, brant and river and sea ducks; the Rallidæ, commonly known as rails, coots, mud-hens, and gallinules; the Limicolæ, commonly known as shore-birds, plovers, surf-birds, snipe, woodcock and sand-pipers, tattlers and curlews; the Gallinæ, commonly known as wild turkeys, grouse, prairie chickens, quail and pheasants; all of which are not intended to be affected by this act.

SEC. 3. Any person violating the provisions of section one of this act shall, upon conviction, be fined in any sum not less than ten nor more than fifty dollars, to which may be added imprisonment for not less than five days nor more than thirty days.

SEC. 4. Sections one and two of this act shall not apply to any person holding a permit, giving the right to take birds or their nests and eggs for scientific purposes, as provided in section five of this act.

SEC. 5. Permits may be granted by the Executive Board of the Indiana Academy of Science to any properly accredited person permitting the holder thereof to collect birds, their nests or eggs for strictly scientific purposes. In order to obtain such permit the applicant for the same must present to such Board written testimonials from two well known scientific men, certifying to the good character and fitness of said applicant to be entrusted with such privilege, and pay to said Board one dollar to defray the necessary expenses attending the granting of such permit, and must file with said Board a properly executed bond in the sum of two hundred dollars, signed by at least two responsible citizens of the State as sureties. The bond shall be forfeited to the State, and the permit become void upon proof that the holder of such permit has killed any bird or taken the nest or eggs of any bird for any other purpose than that named in this section, and shall further be subject, for each offense, to the penalties provided in this act.

SEC. 6. The permits authorized by this act shall be in force for two years only from the date of their issue, and shall not be transferable.

SEC. 7. The English or European house sparrow (*passer domesticus*) and crows, hawks and other birds of prey are not included among the birds protected by this act.

SEC. 8. All acts or parts of acts heretofore passed in conflict with the provisions of this act are hereby repealed.

SEC. 9. An emergency is declared to exist for the immediate taking effect of this act, therefore the same shall be in force and effect from and after its passage."

The coöperation of the people of our State should be secured to enforce this law and also to destroy that mischievous pest, the English sparrow.

The topography of Indiana is such that we do not find a very great difference in climate at any point from that of another locality in the State. Several points have been erroneously noted as the highest elevation in the different parts of the State. The highest point of land in the State is, perhaps, in Randolph or Wayne County,

where an elevation of about 1,300 feet is reached. In 1834, in making the preliminary surveys for the Whitewater Valley Canal, a point near the line between Henry and Randolph Counties was found with an elevation of 1,128 feet above sea level. The line between the same counties on the I., B. & W. (O., I. & W.) survey is 1,175 feet. The summit of the elevation between Green's Fork and Noland's Fork of Whitewater in Wayne County has an elevation of 1,212 feet. From this height of land the general level of the country slopes to the north, to Lake Erie, with an elevation of 573 feet, and Lake Michigan with an elevation of 585 feet; to the west to the Wabash (elevation of low water of Wabash at Terre Haute 451 feet); to the south to the Ohio (elevation low water in Ohio River at Lawrenceburg 434 feet). At the mouth of the Wabash the lowest elevation is reached. Low water mark is noted as 313 feet above the sea, and 260 feet below Lake Erie. The points indicated represent the minimum elevations in eroded valleys, for it must be understood that the descent is not that of a perfect inclined plane. While one descends quite rapidly along the water courses, the general height of the starting point is well maintained on the divides between the drainage area of streams. At the head of Tanner's Creek, Dearborn County, the elevation is 1,035 feet; near Brookville, Franklin County, an elevation of almost 1,100 feet is attained; the top of a "knob" eight miles west of Vienna, Washington County, is 1,019 feet; the surface between White Lick Creek and Eel River, Hendricks County, is 1,054 feet; "High Point," in Steuben County, is noted as 1,086 feet high (Geological Survey of Indiana, 1878). The surface of the State presents considerable differences in its vegetation. The heaviest timber has, for the greater part, disappeared, and was found south of the latitude of Indianapolis. Throughout the northern part of the State the number of large trees is much less and the general size of forest trees decreases noticeably as one proceeds northward. Much of the area is covered with prairies—which are now, except where cultivated, rapidly becoming overgrown with timber—marshes and lakes. A few notes concerning some of the characteristic features of the different quarters of the State are, perhaps, worthy of notice.

The region about the southern end of Lake Michigan presents an unusually fertile field for the ornithologist. Situated as it is, midway between the wooded region of the East and the treeless plains of the West, with the warm river bottoms of the South, rich in southern species, extending within a comparatively short distance, and the great lake upon the North, Northeastern Illinois forms a kind of "four corners" where the avian faunæ of four regions intergrade. To the proximity of Lake Michigan we are indebted for a number of more or less strictly maritime species. * * * As would be expected, the southern species occur only in summer, with the exception of *Lophophanes bicolor*, which is found only in winter. * * * Not only is the influence of the lake upon the faunæ shown by the occurrence of numerous species of birds, attracted by the presence of a large body of water with its congenial surroundings, but the influence of the lake upon the climate and the vegetation in its immediate vicinity has a marked influence upon the list of summer residents. The northwestern portion of the State is divided into alternating tracts of prairie, marsh and woodland, each possessing a bird life of its own. In Lake County, along the lake shore, is a stretch of pine woods known as "the pinery," which is quite peculiar, (Condensed from E. W. Nelson's notes of "Birds of N. E. Illinois.") Coming south one crosses the Kankakee River and marshes, well known regions for water fowl and marsh-inhabiting birds, and enters the Wabash Valley. Back from this valley proper we find occasional prairies and extensive meadows, where such prairie-inhabiting forms as Henslow's Sparrows, Yellow-winged Sparrows, Black-throated Buntings,

and Prairie Larks, are expected to be found. The lower Wabash Valley is noted for its extended "bottom lands" and "cypress swamps," which, for their flora, no less than their bird life, are of much interest. The amount of bird life here in summer is very much in excess of that in the northwestern corner of the State at that season. The difference in the number of birds noted would be readily observed. In the southeastern part of the State the land rises in some places almost four hundred feet above the Ohio River, within a mile or very little more. On leaving the fertile river bottoms, with their successive terraces, one ascends the steep river hills and soon reaches the wet flats where the drainage is so poor that the water stands upon the surface beneath the oak and beech timber the greater part of the year. There is an intimate relation between the topography and the character of the soil here. There is a comparatively level plateau extending from the Ohio River "bluffs" to the northward, west of the valley of the Whitewater, and forming the water shed of a number of streams, some running into the Whitewater and some into the White River. This surface soil is usually a white or gray clay, characteristic of the country within thirty miles of the Ohio River in the southeastern corner of the State. From this one descends until the "broken uplands" are found lying just below the level land. Still lower down the "hill-sides" are reached. These rise more or less abruptly from the bottom lands. The prevailing timber of this region is oak, maple, beech, sweet gum, black gum, etc., and with them are found, each in its season, some birds which prefer these surroundings—Summer Redbird, Cape May Warbler, Black-throated Blue Warbler, etc. East of the Whitewater River to beyond the Ohio line the country is more level and the soil darker and more fertile, the land ranking with the best in the State. The central portion of the State is comparatively level and very fertile. It was more recently settled than the southeastern portion, and hence to-day there may still be seen among the finest farms specimens of the largest trees to be found upon Indiana soil. The northeastern part of the State has been but little explored by the zoölogist. Doubtless it will prove a valuable field for the one who will occupy it. This is the "lake region" of Indiana. Within this quarter is the meeting of two drainage systems—the Wabash to the southwest and the St. Joseph and St. Mary's to the northeast. The Wabash River is the line of principal migration in Indiana. As it turns to the eastward many routes leave it for the north, particularly just south of Lake Michigan, but many birds follow its course along its length. To this fact seems to be due the peculiar distribution of such forms as the Prothonotary and Cerulean Warblers, and in less degree the Kentucky, Worm-eating and Sycamore Warblers.

Much work must yet be done in noting the range of species, making local lists, not only in the portions of the State unvisited by the ornithologist, but also in obtaining much necessary information throughout the portions where observations have been taken, before we can at all understand the birds of this State. As Mr. Ridgway has suggested: "At present we know the subject merely in outline, and what we assume to know is undoubtedly subject to greater or less modification—according to the species involved—in the light of future information."

Indiana is included entirely within the Eastern (Atlantic) faunal Province, and while it is within the limits of the "Carolina fauna" of Mr. Allen, the southern portion contains so many birds that are distinctive of the "Louisiana Fauna" ("Australoriparian Province" of Professor Cope) that it has been thought it should be referred to that district.

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ORDER PYGOPODES. DIVING BIRDS.

SUBORDER PODICIPEDES. GREBES.

FAMILY PODICIPIDÆ. GREBES.

GENUS ÆCHMOPHORUS COUES.

1. *Æchmophorus occidentalis* (Laur.). WESTERN GREBE.

Accidental visitor. Mr. Fletcher M. Noe, of Indianapolis, informs me that a specimen of this species was taken about two miles south of Indianapolis late in September, 1886. I inquired for the specimen, but Mr. Noe had disposed of it, hence I could not see it. Prof. Evermann noted what Mr. Noe said of this bird in the "American Naturalist," March, 1887, p. 291.

GENUS COLYMBUS LINNÆUS.

Subgenus COLYMBUS.

* 2. *Colymbus auritus* Linn. HORNED GREBE.

A regular migrant throughout the southern part of the State, but never abundant. It is also winter resident in some numbers. Among the lakes and marshes of Northern Indiana it breeds in considerable numbers. Mr. Geo. L. Toppan has a specimen in his collection in downy plumage, taken at Sheffield, Indiana, May 24, 1878.

Subgenus DYTES Kaup.

3. *Colymbus nigricollis californicus* (Herm.). AMERICAN EARED GREBE.

Accidental visitor, or perhaps rare migrant. This Western species has not heretofore been reported east of Illinois. The first record within this State is from Brookville, Franklin County, May 19, 1883, where also a second specimen was taken November 5, 1886. These are the only specimens I have seen in the State. Winter visitor on Lake Michigan (Brayton).

GENUS PODYLIMBUS LESSON.

* 4. *Podilymbus podiceps* (Linn.). PIED-BILLED GREBE; WATER-WITCH; DARCHICK; DIDAPPER; DIDIPPER; DIPPER; HELL-DIVER.

A common species during the migrations, breeding commonly throughout northern Indiana and in suitable localities in other parts of the State. They usually lay seven eggs, but sometimes the number reaches eight. It has been doubted whether these birds ever build the floating nests which have been ascribed to them. Dr. F. W. Langdon, in his "Summer Birds of a Northern Ohio Marsh," says: "I desire here to testify to the fact that the nest of the present species does float. * * * The little floating island of decayed vegetation held together by mud and moss, which constitutes the nest of this species, is a veritable ornithological curiosity. Imagine a 'pancake' of what appears to be mud, measuring twelve to fifteen inches in diameter, and rising two or three inches above the water, which may be from one to three feet in depth; anchor it to the bottom with a few concealed

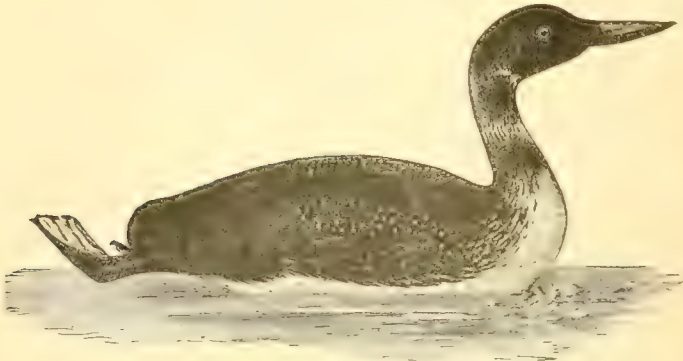
* Species marked with an asterisk (*) breed within the State.

blades of 'saw-grass' in a little open bay, leaving its *circumference entirely free*; remove a mass of wet muck from its rounded top and you expose seven or eight soiled brownish-white eggs, resting in a depression, the bottom of which is less than an inch from the water; the whole mass is constantly damp. * * * The anchoring blades of coarse saw-grass or flags, being always longer than is necessary to reach the bottom, permit of considerable lateral and vertical movement of the nest, and so effectually provide against drowning of the eggs by any ordinary rise of water level, such as frequently occurs during the prevalence of strong easterly winds on the lake."

SUBORDER CEPPHIL. LOONS AND AUKS.

FAMILY URINATORIDÆ LOONS.

GENUS URINATOR CUVIER.



Loon.

5. *Urinator imber* (Gunn.). LOON; GREAT NORTHERN DIVER.

A regular migrant throughout the State in some numbers; sometimes they are winter residents, and throughout the northern part of the State they sometimes are found in summer. Mr. J. W. Byrkit writes that they are permanent residents in Laporte County. I have no knowledge of their breeding within the State, although they will probably be found so to do. Mr. Byrkit informs me that these birds are sometimes caught by fishermen, near Michigan City, "in gill nets and on hooks in thirty fathoms of water."

6. *Urinator lumme* (Gunn.). RED-THROATED LOON.

A rare winter resident and perhaps occasional migrant. February 23, 1885, a bird of this species was shot from a flock of five, near Brookville. Mr. Charles Dury, Cincinnati, Ohio, writes me of a specimen killed near Chalmers, a few years ago. Mr. C. A. Stockbridge reports it as a rare visitor in the vicinity of Ft. Wayne. Reported by Mr. Ruthven Deane from English Lake, May 11, 1890.

ORDER LONGIPENNES. LONG-WINGED SWIMMERS.

FAMILY STERCORARIIDÆ. SKUAS AND JAEGERS.

GENUS STERCORARIUS BRISSON.

7. *Stercorarius pomarinus* (Temm.). POMARINE JAEGER.

"A rare winter visitant to Lake Michigan. October 9, 1876, in company with my friend, Mr. E. W. Nelson, * * * we saw a fine specimen of this bird flying along the lake shore near the State line." (Dr. Brayton. Trans. Ind. Hort. Soc., 1879, p. 150.)

FAMILY LARIDÆ. GULLS AND TERNS.

SUBFAMILY LARINÆ. GULLS.

GENUS LARUS LINNÆUS.

8. *Larus glaucus* Brunn. GLAUCCUS GULL.

Occasional winter visitor along Lake Michigan.

9. *Larus leucopterus* Faber. ICELAND GULL; WHITE-WINGED GULL.

Occasional winter visitor to the northern part of the State, Dekalb County. Hon. R. W. McBride.) "Regular winter visitant to Lake Michigan." (Nelson, Bull. Nuttall Orn. Club, July, 1876, p. 41.) "Not uncommon winter resident on Lake Michigan." (Brayton. Trans. Ind. Hort. Soc., 1879, p. 150.)

10. *Larus argentatus smithsonianus* Coues. AMERICAN HERRING GULL.

A common migrant and locally winter resident, occasionally remaining throughout the winter in considerable numbers, especially on Lake Michigan. Irregular winter visitor along the Ohio River.

11. *Larus delawarensis* Orl. RING-BILLED GULL.

A regular migrant and occasional winter resident in localities noted for the last mentioned species.

12. *Larus franklinii* Sw. & Rich. FRANKLIN'S GULL.

Occasional migrant and rare winter visitor.

13. *Larus philadelphia* (Ord). BONAPARTE'S GULL.

A common migrant and rare winter visitor.

SUBFAMILY STERNINÆ. TERNS.

GENUS STERNA LINNÆUS.

Subgenus STERNA.

14. *Sterna forsteri* Nutt. FORSTER'S TERN.

A rare migrant over most of the State, but common during the migrations on Lake Michigan. Reported by Prof. Evermann, from Vigo County, April 28 and May 19, 1890. Mr. J. Grafton Parker, of Chicago, informs me that this is the most common of the terns on Lake Michigan (vicinity of Colehour) during the fall.

15. *Sterna hirundo* Linn. COMMON TERN; "SEA SWALLOW."

Migrant; in some localities abundant. Some remain throughout the summer in the northern part of the State, where it may be found to breed.



Roseate Tern.

16. *Sterna dougalli* Montag. ROSEATE TERN.

A rare migrant. The only account of its appearance in the State is that given by Dr. Haymond in his paper in Proceedings Philadelphia Academy, 1859, and noted later in the Indiana Geological Survey, 1869. Dr. Langdon has noted its capture near Cincinnati and Dr. Gibbs reports it as an 'occasional visitor' in Michigan.

Subgenus STERNULA Boie.

17. *Sterna antillarum* (Less.). LEAST TERN.

A rare migrant throughout most of the State, but reported as a summer resident in the northern part.

GENUS HYDROCHELIDON BOIE.

*18. *Hydrochelidon nigra surinamensis* (Gmel.). BLACK TERN; SHORT-TAILED TERN.

A regular migrant in the southern part of the State and an abundant summer resident northward, where it breeds, commonly about the lakes. Mr. Ruthven Deane reports them as summer residents as far south as English Lake.

ORDER STEGANOPODES. TOTIPALMATE SWIMMERS.

FAMILY ANHINGIDÆ. DARTERS.

GENUS ANHINGA BRISSON.

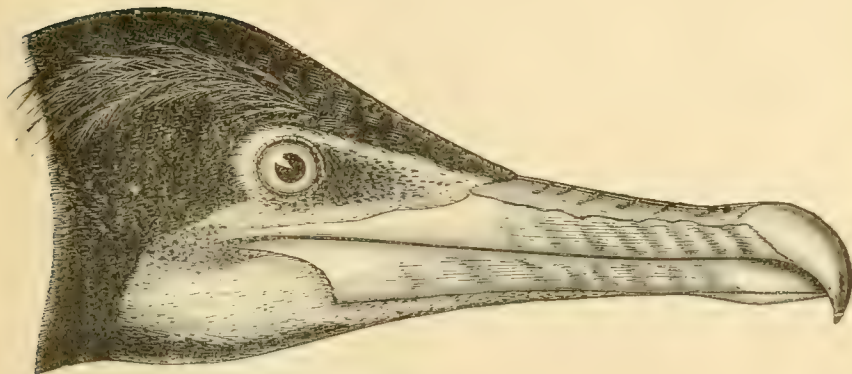
19. *Anhinga anhinga* (Linn.). ANHINGA; SNAKE BIRD.

Accidental visitor. So far as I know but a single specimen has been reported from this State. Mr. Fletcher M. Noe, of Indianapolis, reports having received a male, which was killed some two miles south of Indianapolis on White River. Prof. Evermann gave, upon Mr. Noe's authority, the report of this capture in "American Naturalist," March, 1887, p. 291.

FAMILY PHALACROCORACIDÆ. CORMORANTS.

GENUS PHALACROCORAX BRISSON.

Subgenus PHALACROCORAX.



Head of Double-crested Cormorant, nat. size.

20. *Phalacrocorax dilophus*. (Sw. & Rich). DOUBLE-CRESTED CORMORANT.

Irregular visitor in winter, and also migrant regularly but not common.

21. *Phalacrocorax dilophus floridanus* (Aud.). FLORIDA CORMORANT.

This Southern species has been noted over the most of the southern part of the State in spring and fall. In the Wabash valley it ranges as far north as Terre Haute, where Prof. O. P. Jenkins found it. Throughout the lower Wabash valley it is probably a summer resident in some numbers. Mr. Robert Ridgway reports that he has noted it breeding in Knox and Gibson Counties. It may occasionally extend its range over the entire State, having been taken in both northern Illinois and northern Ohio. Mr. Chas. Dury reports it breeding as far north as St. Mary's Reservoir in Ohio, which is probably not over twelve miles east of the Indiana line.

FAMILY PELECANIDÆ. PELICANS.

GENUS PELECANUS LINNÆUS.

Subgenus CYRTOPELICANUS Reichenbach.

22. *Pelecanus erythrorhynchos* Gmel. AMERICAN WHITE PELICAN.

A rare migrant. Reported by Prof. B. W. Evermann, from Carroll and Monroe Counties; by Dr. Haymond, from Franklin County; by Mr. Robert Ridgway, from Knox and Gibson Counties; by Mr. C. A. Stockbridge, from Allen County; by Mr. Chas. Dury, from "Swan Lake," and from Fulton County by Dr. Vernon Gould.

ORDER ANSERES. LAMELLIROSTRAL SWIMMERS.

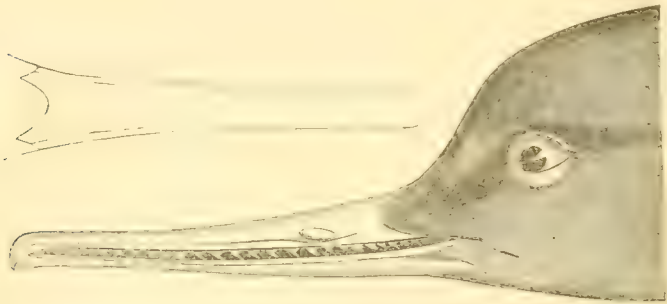
FAMILY ANATIDÆ. DUCKS, GEESE AND SWANS.

SUBFAMILY MERGINÆ. MERGANSERS.

GENUS MERGANSER BRISSON.

23. *Merganser americanus* (Cass.). AMERICAN MERGANSER; FISH DUCK; GOOSANDER.

A common migrant and winter resident. Even in the coldest winters they may be found about open water. In the northern part of the State they are resident, as they are found in some numbers throughout the summer.



Head of Red-breasted Merganser with outline of bill from above, nat. size.

24. *Merganser serrator* (Linn.). RED-BREASTED MERGANSER.

Migrant and winter resident throughout the State, rare. Said to be "not rare" in winter on Lake Michigan. (J. G. Parker.)

GENUS LOPHODYTES REICHENBACH.

*25. *Lophodytes cucullatus* (Linn.). HOODED MERGANSER.

A common migrant and winter resident, and uncommon resident. Breeds throughout the State in suitable localities. Mr. Robert Ridgway found it breeding in hollow trees in Knox County in the spring of 1881. (Bulletin Nutt. Orn. Club, Jan., 1882, p. 22.)

SUBFAMILY ANATINÆ. RIVER DUCKS.

GENUS ANAS LINNÆUS.

*26. *Anas boschas* Linn. MALLARD.

A common migrant, occasional winter resident, and, in the northern part of the State, occasional resident. Has been found breeding in Starke County by Mr. H. K. Coale and Mr. Ruthven Deane; in Dekalb County by Mr. H. W. McBride. In the summer of 1889 Mr. Deane notes that they bred quite commonly about English Lake. Mr. Robert Ridgway thinks it may breed in Knox and Gibson Counties.

27. *Anas obscura* Gmel. BLACK DUCK; DUSKY DUCK.

Migrant, occasional winter resident, and, in the northern part of the State, occasional resident. Not so common as the last mentioned species.

Subgenus CHAULELASMUS Boanparte.

28. *Anas strepera* Linn. GADWALL.

Rare migrant; has been identified in Franklin County by Dr. Haymond and Mr. E. R. Quick, and by Dr. F. Stein in the lower Wabash Valley.

Subgenus MARECA Stephens.

29. *Anas americana* Gmel. BALDPATE; AMERICAN WIDGEON.

Common migrant and occasional winter resident. Rare summer resident northward. Breeds. Mr. H. W. McBride informs that he found a female Baldpate ("Widgeon") with thirteen young at Hog-back Lake, Steuben County, in May, 1889.

Subgenus NETTION Kaup.

30. *Anas carolinensis* Gmel. GREEN-WINGED TEAL.

A common migrant and winter resident and, probably, summer resident in some localities in northern part of the State.

Subgenus QUERQUEDULA Stephens.

31. *Anas discors* (Linn.). BLUE-WINGED TEAL.

Resident in some numbers. Abundant; migrant; winter resident tolerably common. Mr. Robert Ridgway informs me of their breeding in Knox and Gibson counties. Breeds at English Lake. (Deane.)

GENUS SPATULA BOIE.

32. *Spatula clypeata* (Linn.). SHOVELLER; SPOON-BILL.

Winter resident southward. Migrant throughout the State; not common; rare summer resident. Mr. Ruthven Deane informs me that he thinks it breeds along the Kankakee River. He reports a nest with nine fresh eggs obtained at English Lake, May 4, 1890.



Head of a female Pintail.

GENUS DAFILA STEPHENS.

33. *Dafila acuta* (Linn.). PINTAIL.

Migrant in considerable numbers; perhaps occasionally winters in the southern part of the State. They have been known to remain in the lakes in the northern part of the State until last week in May and to return by 21st of September. Seen at English Lake February 14 and 15, 1891. (Deane.)



Wood Duck.

GENUS AIX BOIE

34. *Aix sponsa* (Linn.). WOOD DUCK.

Migrant and summer resident in some numbers. Some perhaps winter in southern part of the State. Breeds throughout the State and in suitable localities is common. Builds its nest in trees, hence is called, sometimes, "Tree Duck"; also known as "Summer Duck."

GENUS CAIRINA FLEMING.

35. *Cairina moschata* (Linn.). MUSCOVY DUCK.

A specimen of this beautiful duck, which Mr. Ridgway thinks may be an escaped hybrid between a Muscovy and a tame duck, was shot near the mouth of the Big Miami River, in Indiana, in January, 1890, and is now in the possession of Mr. J. M. Bauer, of Lawrenceburg, Ind.

GENUS AYTHYA BOIE.

36. *Aythya americana* (Eyt.). REDHEAD.

A regular migrant throughout the State, not generally common, but Mr. Geo. L. Toppan reports it as common in the northwestern part of the State.

37. *Aythya vallisneria* (Wils.). CANVAS-BACK.

Regular migrant; not common even in the lake district of the State and throughout the greater part of our limits quite rare.

Subgenus FULIGULA Stephens.

38. *Aythya marila nearctica* (Stejn.). AMERICAN SCAUP DUCK.

Rare migrant, appears to be more common in the Wabash Valley, where it has been noted on several occasions, in Vigo County, by Professors O. P. Jenkins, B. W. Evermann and Dr. J. T. Scovill. It has also been noted by Mr. H. W. McBride, in Dekalb County; Mr. C. A. Stockbridge, in Allen; Prof. Evermann, in Monroe; Dr. Haymond, in Franklin.

*39. *Aythya affinis* (Eyt.). LESSER SCAUP DUCK.

Common migrant and rare summer resident. Breeds. Mr. Ruthven Deane informs me that he has reliable authority for saying a pair bred at English Lake in 1886, where they were seen with their young. They were supposed to be "cripples." He also informs me of a flock of thirteen seen there June 5, 1888. Mr. J. G. Parker says "they are the most common of all the ducks" during migrations, and afford the main duck shooting in the vicinity of Chicago.

40. *Aythya collaris* (Donov.). RING-NECKED DUCK.

Migrant; generally recognized as rare, but in the northern part of the State tolerably common. Occasionally found in winter in the southern part of the State.

GENUS GLAUCIONETTA STEJNEGER.

41. *Glaucionetta clangula americana* (Bonap.). AMERICAN GOLDEN-EYE.

Migrant and winter resident. Said to be common about Lake Michigan. (Parker.)

42. *Glaucionetta islandica* (Gmel.). BARROW'S GOLDEN-EYE.

Rare visitor in winter and spring. There are, so far as I know, but two records of the occurrence of this species in the State. Dr. F. Stein took it on the lower Wabash River, Gibson County, December, 1874, ("Bull. Nuttall Orn. Club," July, 1876, p. 41,) and Prof. B. W. Evermann near Camden, Carroll County, March 19, 1885, ("The Auk," October, 1888, p. 347.) "Winter resident on Lake Michigan," (Brayton).

GENUS CHARITONETTA STEJNEGER.

43. *Charitonetta albeola* (Linn.). BUFFLE-HEAD; BUTTER DUCK; BUTTER BALL.

Common migrant and winter resident. Some winters they are present throughout the entire State; others, when the northern streams and lakes are ice-bound, they are only found along the southern border. This is, however, true of most of the ducks that spend the winter in the State.

GENUS CLANGULA LEACH.

44. *Clangula hyemalis* (Linn.). OLD SQUAW.

Winter resident and migrant, not generally common throughout the State, but found occasionally on the larger watercourses. Mr. J. W. Byrkit informs me that they are very "abundant in the lake (Michigan) off Michigan City and are caught in abundance in the gillnets in twenty to thirty fathoms of water." It has been reported from the mouth of the Great Miami River (Dearborn County), Feb. 24, 1880, where one was taken by Mr. T. J. Baum. (Journ. Cin. Soc. Nat. Hist., Dec. 1881, p. 341); from the Whitewater River (Dury), and a specimen in my collec-

tion was taken at Metamora (Franklin County), by R. Williams, about 1882. Dr. F. Stein has noted its occurrence on the lower Wabash River (Bull. Nuttall Orn. Club, July 1876, p. 44), and Mr. C. A. Stockbridge has identified it in Allen County.

GENUS OIDEMIA FLEMING.

Subgenus OIDEMIA.

45. *Oidemia deglandi* Bonap. VELVET SCOTER; WHITE-WINGED SCOTER.

Winter and fall visitor; rare. Dr. Haymond records it from Franklin County as "numerous in winter." (Ind. Geol. Rept., 1869, p. 233.) Mr. Ruthven Deane writes that a duck of this species was killed at English Lake in October or November, 1889, and two others were killed in November, 1890, after a heavy blow off Lake Michigan.

Subgenus PELIONETTA Kaup.

46. *Oidemia perspicillata* (Linn.). SURF SCOTER; SEA COOT.

Rare winter visitor. Taken by Dr. F. Stein on the lower Wabash River, near Mt. Carmel, Ill., in October, 1875. Mr. E. W. Nelson notes that it is common on Lake Michigan and adjacent waters. (Bull. Nuttall Orn. Club, July, 1876, p. 81.)

GENUS ERISMATURA BONAPARTE.

47. *Erismatura rubida* (Wils.). RUDDY DUCK; "BLACK JACK."

Migrant; generally rare but more numerous among the lakes and marshes. They are usually seen singly or in small "bunches," often in company with coots. "It appears to be quite dumb at times, for I have often rowed up to them with a boat when they were apparently sleeping." (Meyer.)

SUBFAMILY ANSERINÆ. GEESE.

GENUS CHEN BOIE.

48. *Chen hyperborea* (Pall.). LESSER SNOW GOOSE.

Rare migrant throughout the State. Has been reported from Dekalb County (McBride); Carroll County (Evermann); Lake County (Meyer). A specimen in the collection of the Brookville Society of Natural History was taken near Brookville. Mr. Deane reports Snow Geese from English Lake, but is uncertain whether they are this or the next succeeding species.

49. *Chen hyperborea nivalis* (Forst.). GREATER SNOW GOOSE.

Rare migrant. Doubtless these two species are not usually distinguished. Has been reported from Chalmers (Dury). Both ducks are known as "White Brant."

50. *Chen caerulescens* (Linn.). BLUE GOOSE.

Rare migrant. I omitted this bird from the list of the birds of Franklin County because its specific identity was then considered doubtful; since it has been restored to its place in the list, I mention it. Dr. Haymond notes having identified it in Franklin County (Ind. Geol. Rept 1869, p. 231). Prof. Evermann reports a single specimen April 2, 1887, from Vigo County, and Mr. Dury informs me of specimens taken at Chalmers and English Lake.

GENUS ANSER BRISSON.

51. *Anser albifrons gambeli* (Hartl.). AMERICAN WHITE-FRONTED GOOSE.

Rare migrant. Reported from Davis, Indiana, in 1874, specimen in the collection of Mr. C. A. Stockbridge, Ft. Wayne; and from English Lake, by Mr. Chas. Dury; also, by Mr. Ruthven Deane.

GENUS BRANTA SCOPOLI.

* 52. *Branta canadensis* (Linn.). CANADA GOOSE.

Common migrant and winter resident in some numbers in suitable localities; in the northern part of the State resident in some numbers. They breed quite frequently. The farmers often gather their eggs and hatch them under hens. Formerly these geese were much more common than they are now, but they are still abundant during the migrations among our lakes and marshes.

53. *Branta canadensis hutchingsii* (Sw. & Rich.). HUTCHINS'S GOOSE.

Common migrant; formerly bred in the State. (Dr. Brayton. Trans. Ind. Hort. Soc., 1879, p. 148.)

54. *Branta bernicla* (Linn.). BRANT.

Accidental visitor. This goose prefers salt water and is rare at any great distance from the ocean. It is occasionally found in the interior, having been reported from Illinois, Wisconsin and Ohio. Dr. Haymond identified it in the White Water valley. (Proc. Phila. Acad. Nat. Sci., 1859, p. 296; also, Ind. Geol. Report, 1869, p. 232.)

SUBFAMILY CYGNINÆ. SWANS.

GENUS OLOR WAGLER.

55. *Olor columbianus* (Ord). WHISTLING SWAN.

Rare migrant. I have a specimen taken in Franklin County, March 7, 1888, by Stephen McKeown. It has been reported by Mr. R. B. Trouslet, from Porter County; also, from Lake County, March 8, 1888, (Meyer). Carroll County, (Evermann, "The Auk," October 1888, p. 346); Dekalb County (McBride).

56. *Olor buccinator* (Rich.). TRUMPETER SWAN.

Rare migrant; probably rarer than the last mentioned species. Carroll County (Evermann, "The Auk," October, 1888, p. 346); Lake County (Meyer); Fulton County (Dr. V. Gould); Dekalb County (McBride).

ORDER HERODIONES. HERONS, STORKS, IBISES, ETC.

SUBORDER IBIDES. SPOONBILLS AND IBISES.

FAMILY PLATALEIDÆ. SPOONBILLS.

GENUS AJAJA REICH.

57. *Ajaja ajaja* (Linn.). ROSEATE SPOONBILL.

Accidental visitor. Prof. B. W. Evermann is satisfied that these birds were seen and one killed near Terre Haute several years ago. Mr. R. E. Kirkman, of Richmond, Ind., writes me that a Roseate Spoonbill was killed near Portland, Jay County, July 14, 1889. The specimen was preserved and is now in the possession of a gentleman at Bryant, Ind. Mr. Ridgway has noted their occurrence in Illinois.

FAMILY IBIDIDÆ. IBISES.

GENUS GUARA REICHENBACH.

58. *Guara alba* (Linn.). WHITE IBIS.

Rare summer visitor. Mr. Robert Ridgway informs me that he and Mr. William Brewster saw a considerable flock on the Wabash river near Mt. Carmel, Ill., in May, 1881. They were observed on both sides of the river. The fact that they were seen in a flock at this time of the year would seem to indicate that they perhaps were near their breeding ground. (Bull. Nutt. Orn. Club, October, 1878, p. 166; Ibid. Vol. V, p. 32.)

SUBORDER CICONIÆ. STORKS, ETC.

FAMILY CICONIIDÆ. STORKS AND WOOD IBISES.

SUBFAMILY TANTALINÆ WOOD IBISES.



Wood Ibis.

GENUS TANTALUS LINNÆUS.

59. *Tantalus loculator* (Linn.). WOOD IBIS.

Perhaps regular summer visitor, or summer resident, in the Lower Wabash Valley; throughout the remainder of the southern two-thirds of the State rare summer visitor. The first account of the occurrence of these birds in the State is given by Dr. Haymond (Proc. Phila. Acad. Nat. Science, 1856, p. 295) in which he says: "The first day of August, 1853, a large flock of these birds made their appearance in this neighborhood. They remained along the river and the White Water canal for about a month or six weeks. A son of one of my neighbors broke the wing of one of them and caught it. After keeping it three or four weeks, feeding it upon fish, he gave it to me. I kept it until near the first of November, when it fell a victim, as many another biped has done, to its appetite. Some mackerel had been placed to soak upon a table in the back yard, one of which he stole and ate, and upon the evening of the next day died in convulsions." Dr. Haymond also re-

fers to this in Indiana Geological Report, 1869, p. 229. I was very much surprised in the winter of 1889-90 to have brought to me by my friend, Mr. Edw. Hughes, the skull of a Wood Ibis, the name of which he desired to know. He said it was the skull of a bird which had been killed about three miles south of Brookville, and was preserved as a curiosity in the family of Mrs. St. John. At my request he inquired the date and facts of its capture. He was informed that it was one of a number which were seen along the river in the summer of 1855 or 1856. This was perhaps one of the same flock of which I have before spoken. Mr. Ridgway has seen it in Knox and Gibson counties several times, and concerning its occurrence there remarks: "The Wood Ibis occurs numerously every summer along the Wabash, and while it may not breed, I think that it does."

Dr. F. Stein informs me that he saw a pair of Wood Ibises at "Little Chain," about ten miles west of Mt. Vernon, about 1874 '75. Mr. C. E. Newlin, of Kokomo, informed me that there was a specimen in the possession of Dr. O. A. J. Morrison, of Middle Fork, Ind. It was shot by a Mr. Harmon at "Maple Swamp," in Carroll County, July 30, 1887. To Prof. Evermann, who has noted the occurrence of this species in Indiana at some length ("The Auk," April, 1889, pp. 186-7), I am indebted for some further notes. He is satisfied of the killing of a specimen near Terre Haute several years ago. He says he saw a mounted specimen in a store window in Mt. Vernon, and upon inquiry learned it was shot about Oct. 30, 1887, from a flock of about thirty-five or forty, at Hovey's Lake, Posey County. The same authority informs me of the occurrence of nine of these birds at Mackey's Ferry, ten miles west of Mt. Vernon, Sept. 11, 1888. Mr. Fletcher M. Noe informs me that in the collection of the late Dr. G. M. Levette, which came into his possession, were some skulls of Wood Ibises labeled "Indiana."

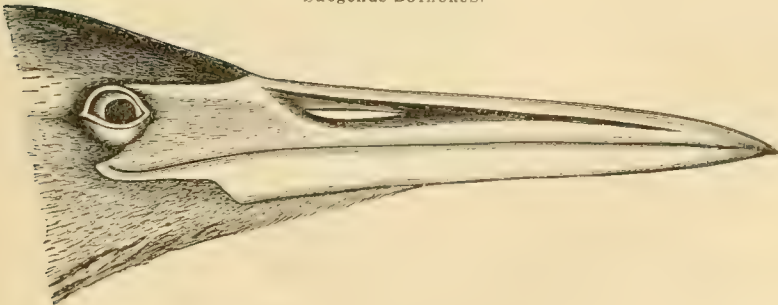
SUBORDER HERODII. HERONS; EGRETS; BITTERNS, ETC.

FAMILY ARDEIDÆ. HERONS; BITTERNS, ETC.

SUBFAMILY BOTAURINÆ. BITTERNS.

GENUS BOTAURUS HEERMANN.

Subgenus BOTAURUS.



Bill of Bittern, natural size.

60. *Botaurus lentiginosus* (Montag.). AMERICAN BITTERN.

Regular migrant; tolerably common; summer resident in suitable localities, especially northward; in mild winters some may remain about the sloughs and

ponds of the lower Wabash Valley. It has been reported as breeding from Lake County (Meyer, Toppan, Parker), Starke County (Deane), Knox and Gibson counties (Ridgway), Porter County (Byrkit), Vigo County (Evermann). Mr. Deane, speaking of some observations at English Lake June 10, 1888, says: "Found nest containing four eggs, quite fresh; nest, a loose structure of broken cane, floating on the water, built about one foot high. A large snapping turtle (*C. serpentina* (L.) Schweig.) was on the side of the nest, evidently with the intention of capturing the eggs or sitting bird, who was sitting unconcerned."

Subgenus ARDETTA Gray.

61. *Botaurus exilis* (Gmel.). LEAST BITTERN.

Regular migrant; generally rare, but locally somewhat common; summer resident in suitable localities, some places common. Has been reported breeding in Lake County. "Breeds plentifully, laying three or four greenish-white eggs in a nest just above the water" (Parker). Has also been reported breeding in same county by Mr. George L. Toppan. Mr. H. K. Coale and Mr. L. T. Meyer, Starke County, English Lake, "saw several and found nest built of loose, dry cane attached to the reeds three feet above water," June 10, 1888 (Deane); same locality (Dury); Dekalb County (McBride); Vigo County, "a number breeding May 31, 1890" (Evermann). These birds as migrants are noted in April and early May and in September and October. They are very rare in the Whitewater Valley. The account of his observations concerning their habits at breeding time has been very kindly furnished me by Prof. Evermann. He says: "I first discovered the nests of this bird May 31, 1890, while gathering water lilies in the pond (Goose Pond, nine miles south of Terre Haute). The water does not, in spring at least, reach a greater depth than three feet in its deeper parts. The center of the pond is filled with water lilies (*Nuphar* and *Nymphaea*), which were then in bloom, while in the more shallow water are rank growths of cat-tails, rushes (*Equisetum limosum*) sedges (*Sagittaria*), pickerel weed (*Peltandra undulata*), etc. We found on this day twelve nests containing, altogether, forty-three eggs of the Least Bittern. A week later, June 6, I found two more nests containing four and five eggs respectively. I usually found the nest from a few inches to a foot above the water, placed upon a few stems or leaves of the cat-tail, which the bird had evidently bent down and arranged into a very shallow, insecure nest. In a few cases the nests were made of the leaves of *Sagittaria* or *Peltandra*, pressed down as were those of the cat-tail. I did not see the bird on the nest in a single case, so watchful and shy are they. In most cases, however, the bird would rise from the cat-tails and fly away, and I was usually able to find a nest not far from where it arose. I did not find more than five eggs in any set ($\frac{1}{2}$, $\frac{1}{5}$, $\frac{1}{4}$, $\frac{1}{4}$, $\frac{1}{4}$, $\frac{1}{4}$, $\frac{1}{4}$, $\frac{1}{4}$, $\frac{1}{4}$, $\frac{1}{4}$ and $\frac{1}{4}$ May 31, and $\frac{1}{4}$, $\frac{1}{4}$ June 6), while most sets contained but four. All the eggs taken May 31 were fresh, and no doubt many of these sets containing but four eggs were not completed." Mr. Blatchley also obtained some eggs from the same pond.

SUBFAMILY ARDEINÆ. HERONS AND EGRETS.

GENUS ARDEA LINNÆUS.

Subgenus ARDEA.

62. *Ardea wuerdemanni* Baird. WÜRDemann's HERON.

Accidental visitor. Mr. Ridgway reports positively identifying this species in Knox and Gibson counties in 1876. I know of no other account of its occurrence in the State.

*63. *Ardea herodias* Linn. GREAT BLUE HERON.

Common migrant throughout the southern part of the State, breeding abundantly in suitable localities north of the latitude of Indianapolis. Mr. Ridgway also informs me that it breeds in Knox and Gibson counties. It may occasionally



Great Blue Heron.

breed throughout the Wabash Valley. I have never heard of its breeding on the Whitewater, although it has been reported as breeding on the "Great Miami" (Langdon Revised List, Journ. Cin. Soc. Nat. Hist., Jan. 1879, p. 17). They usually breed in communities of greater or less number known as "heronries," but occasionally are found erecting solitary nests. They have been reported also as breeding in the following counties: Vigo (Evermann), Lake (Meyer), Allen (Stockbridge), Porter (Trousnot), Steuben (McBride), Dekalb (McBride), Starke (Deane, Dury), Clinton (Ghere). It is probable some may winter, in mild winters, within the State. They migrate very early, usually in March and April, and return

in August, September and October. It has, however, been reported from Dekalb County by Mr. H. W. McBride, Feb. 24, 1890, and by Professor Evermann from Carroll County, Feb. 14, 1885 ("The Auk," Oct. 1888, p. 347).

Subgenus *HERODIAS* Boie.

° 64. *Ardea egretta* (Gmel.). AMERICAN EGRET.

Summer visitor throughout the State in greater or less numbers; summer resident southward. Mr. Ridgway informs me of its breeding in Knox and Gibson counties. They occasionally are found farther northward in spring. Prof. Evermann reports one at Bloomington April 10, 1887. "White Herons" and "White Cranes" are reported from several northern localities either as summer residents or as "breeding." While I know nothing as to the identity of the species referred to, it seems probable that some white species—perhaps this one—is intended. Mr. H. W. McBride informs me of having often seen this species, both alive and dead, in DeKalb and Steuben counties. At a "crane-town," Golden Lake, in Steuben County, he says he has often seen a pair of these Egrets in company with a number of Great Blue Herons, and, while he thinks they nested, was unable to positively so determine. A hunter, an acquaintance of Mr. McBride's, described a "white crane" which he shot from its nest near Wolf Lake, in Noble County, and Mr. McBride thinks, from the description, it was this species.

Subgenus *GARZETTA* Kaup.

° 65. *Ardea candidissima* (Gmel.). SNOWY HERON.

Summer visitor over most of the State in August and September. Breeds in Gibson and Knox counties (Ridgway). They have been noted from "Lower Wabash Valley" (Stein); Lake County (Meyer, Toppan); Jefferson County (Hubbard); Allen County (Stockbridge); Franklin County (Quick). Some of these notes may refer to the preceding species. These and the last mentioned species are striking objects as their snowy plumage appears among the dark-green foliage in the bright sunlight of our August days.

Subgenus *HYDRANASSA* Baird.

66. *Ardea tricolor ruficollis* (Gosse). LOUISIANA HERON.

Rare summer visitor. It was identified by Mr. F. T. Jencks near Hanna, Starke County, June, 1876. (Bull. Nuttall Orn. Club, April, 1877, p. 51.)

Subgenus *FLORIDA* Baird.

° 66. *Ardea cærulea* (Linn.). LITTLE BLUE HERON.

Summer resident in the southwestern part of the State. Dr. Stein identified it in the Lower Wabash Valley, and Mr. Ridgway informs me of its breeding in Knox and Gibson counties, and says that it occurs abundantly along the Wabash every summer.

Subgenus *BUTORIDES* Blyth.

67. *Ardea virescens* Linn. GREEN HERON.

Summer resident throughout the State. Breeds. This is a well known little species, found everywhere about creeks, rivers, ponds and lakes, in the vicinity of which it breeds. They were formerly noted, in Southeastern Indiana at least, for their preference for orchards as nesting places. Latterly such is not the case. These birds are known to many by the names "Schytpeoke," "Poke," and "Fly-up-the-Creek."

GENUS NYCTICORAX STEPHENS.

Subgenus NYCTICORAX.

- *68. *Nycticorax nycticorax nævius* (Bald.). BLACK-CROWNED NIGHT HERON. "QUAWK,"
"SQUAWK," "QUA-BIRD."

Regular migrant. Not common summer resident locally. Breeds in some numbers in the northern part of the State, Starke County, "English Lake," (Deane). They nest in May and June. Mr. Deane says, June 10, 1888: "Large numbers in the heronry, and many flying over were carrying sticks and building."

Subgenus NYCTINASSA Stejneger.

- *69. *Nycticorax violaceus* (Linn.). WHITE-CROWNED NIGHT HERON.

Common summer resident in some parts of the lower Wabash Valley. Breeds. I give Mr. Ridgway's account of his observations concerning this species in Knox County: "A colony of perhaps a hundred pairs having their nests among the tall ash and sweet-gum trees in a creek bottom, near the edge of the pond. The nests were mostly at a considerable height and few of them readily accessible. They had just begun to lay, and were frightened away from the locality during a 'wet spell' by squirrel hunters. A female was shot from her nest April 27, and a perfect egg cut from her oviduct. Several fine specimens of the bird were secured, and it was noticed that the delicate, almost luminous, yellowish buff of the forehead very soon faded." (Bull. Nutt. Orn. Club, January, 1882, p. 22.)

ORDER PALUDICOLÆ. CRANES, RAILS, ETC.

SUBORDER GRUES. CRANES.

FAMILY GRUIDÆ. CRANES.

GENUS GRUS PALLAS.

70. *Grus americanus* (Linn.) WHOOPING CRANE.

Rare migrant. It is not improbable that it may occasionally breed, since Mr. E. W. Nelson found it breeding in Illinois. Dr. Stein noted it once in the lower Wabash Valley; Mr. Trouslet reports it from Porter County, April 25, 1887; Mr. L. T. Meyer, writing from Lake County, says: "Rare, exceedingly so. Formerly a summer resident, but the draining of the Kankakee marsh has driven them away." Mr. Chas. Dury writes me of its occurrence in "North Indiana; also near Bloomington." "Formerly abundant." (Dr. Brayton.)

71. *Grus mexicana* (Mill.) SANDBILL CRANE.

Regular but generally a rare migrant; and rare summer resident. Most numerous on the prairies, and from what I can learn was formerly much more common than now. Have been reported from the greater part of the State, excepting the Whitewater Valley, from which I can learn of no records. At times, in certain localities, they seem to be common. Mr. Deane informs me that September 21, 1889, he saw "a good many" at English Lake, and the same authority informs me it has been found breeding at North Judson. "Formerly breeding abundantly in the large marshes of the State." (Dr. Brayton.)

SUBORDER RALLI. RAILS; GALLINULES; COOTS, ETC.

FAMILY RALLIDÆ. RAILS; GALLINULES, ETC.

SUBFAMILY RALLINÆ. RAILS.

GENUS RALLUS LINNÆUS.

*72. *Rallus elegans* Aud. KING RAIL; RED-BREASTED RAIL; "MARSH HEN."

Migrant southward; summer resident, rare in some places, but common throughout the northern part of the State, where they breed in some numbers. They pass northward in April and early May and immediately proceed to nest-building. Nests have been found with fresh eggs in June. (Deane) The parents have been noted, with "downy black" young following, June 8 and 16, 1878, June 1, 1884. (Coale). Mr. Ridgway informs me of its breeding in Knox and Gibson counties. Mr. Deane, under date May 11, 1890, from English Lake, says: "One nest, 12 eggs, found by Mr. Steinman, built in over-flowed meadow; nest consisting of broken, dried cane thrown up; the nest proper very small and the eggs piled up on top of each other."

*73. *Rallus virginianus* Linn. VIRGINIA RAIL.

Regular and rather common migrant; summer resident in some numbers; locally northward, Lake County (Meyer, Parker, Toppan); Laporte County (Byrkitt). This species appears to be much more common in the spring than in the fall migrations, in fact it is almost unknown at the latter season. Mr. Deane's experience is the same as mine, for writing upon this subject he says, speaking of the English Lake region: "We never get the Virginia Rail in the fall. * * I have examined a good many bags of small Rail in August and September and have killed as many as eighty in a morning, and no Virginias taken." Mr. Wm. S. Perry found them equally abundant with the Sora in April, 1885, in the Kankakee marsh. (See notes on Yellow Rail.) Mr. H. W. McBride found them breeding in Elkhart County, May 19, 1890.

GENUS PORZANA VIEILLOT.

Subgenus PORZANA.



SORA.

*74. *Porzana carolina* (Linn.). SORA; CAROLINA RAIL.

Common migrant throughout the State and common summer resident in the northern part, where it breeds commonly. Dr. Stein informs me they are not rare in Gibson and Knox counties, so that it is possible that some breed in localities which seem well adapted to them here.

Subgenus *COTURNICOPS* Bonaparte.75. *Porzana noveboracensis* (Gmel.). YELLOW RAIL.

A rare migrant. The movements of these birds are hard to trace. They seem to be nowhere common, and while they have been reported from several localities, I am unable to learn that they are summer residents within our limits. It has been reported from the following counties: Clinton (Newlin); Decatur (West); Delaware (Williamson); Monroe (Evermann). Mr. Dury writes that he has received several specimens from Indiana, two of which are in his collection and one in that of the Cuvier Club, Cincinnati, Ohio. In September, 1879, quite a number were found in a small swamp, less than two miles north of Brookville. They were very tame, and several were caught by ploughmen in their hands, two of which were brought to me. Mr. Ruthven Deane has kindly placed at my disposal two very interesting letters upon these birds from Mr. Wm. S. Perry, of Worcester, Massachusetts, who twice met with them in our State. The exact locality, I am unable to give, but understand it was on the Kankakee Marsh. He first visited that locality April 13, 1876, when he found two, and for this reason was led there again in the spring of 1885. He says: "I consider them quite rare. I hunted every day for six weeks especially for Rails and probably started 1,500 Virginia, 1,500 Sora, 200 King and five Yellow. I think that is about the proportion they occur, although with the experience I had could probably find more if I should try again. I found the Yellow Rail on a very small part of the marsh, say fifty acres in extent, rather high ground that is not so boggy and wet as where the other species of Rail were plenty. * * * They come very early in April, and possibly late in March. The five I have I got between the dates of April 2 and 13."

Subgenus *CRECISCUS* Cabanis.76. *Porzana jamaicensis* (Gmel.). BLACK RAIL.

Very rare migrant, and perhaps summer resident. The only known occurrence in the State was at English Lake, April 22, 1888, when it was identified by Mr. Ruthven Deane. Since they are known to be rare summer residents in northern Illinois and residents in the southern portion of that State, we may expect to find such to be the case with us.

SUBFAMILY GALLINULINÆ. GALLINULES.

GENUS *IONORNIS* REICHENBACH.77. *Ionornis martinica* (Linn.). PURPLE GALLINULE.

A rare migrant. Doubtless it is also a rare summer resident of our swamps, but at present it is only known as first given. It has been reported from the following counties: Wayne, two specimens (DeWitt); Decatur, one specimen, May, 1883, (Guthrie), and from Franklin County, where one was captured in the spring of 1880.

GENUS *GALLINULA* BRISSON.78. *Gallinula galeata* (Licht.). FLORIDA GALLINULE.

Migrant regularly, not common; northward, summer resident, locally common. Breeds. They are recognized as very late migrants for birds of their kind; are usually taken outside of localities where they spend the summer, late in April and early in May. They are found with young throughout the month of June. They have been reported as breeding from the following counties: Starke—Eng-

lish Lake—where they breed in limited numbers, (Dury; Deane); also, at Davis Station (Coale); Lake County, common, (Toppan); “very common about the lakes (George and Wolf), the boys collect hundreds of their eggs every year. Arrives much later than the Coots,” (Parker); Vigo, (Evermann); Dekalb, (McBride.)



Frontal plate of a species of Coot.

SUBFAMILY FULICINÆ. COOTS.

GENUS FULICA LINNEUS.

79. *Fulica americana* Gmel. AMERICAN COOT.

Common migrant and possibly rare winter resident, southward; northward summer resident, locally very common. They migrate throughout March, April and early May, and October and November. March 5, April 25, May 16, October 5, October 21, November 21, are dates of the beginning, middle and end of the migrations in Southern Indiana. Professor Evermann reports them breeding commonly in Vigo County. Found at English Lake February 14 and 15, 1891, (Deane.)

ORDER LIMICOLÆ. SHORE BIRDS.

FAMILY PHALAROPODIDÆ. PHALAROPES.

GENUS CRYMOPHILUS VIEILLLOT.

80. *Crymophilus fulicarius* (Linn.). RED PHALAROPE.

Rare migrant. I am informed by Mr. R. R. Moffitt that he killed one in Jasper County April 10, 1885, and Prof. B. W. Evermann informs me that one was procured near Terre Haute October 23, 1889, by Dr. J. T. Scovill, of that city.

GENUS PHALAROPUS BRISSON.

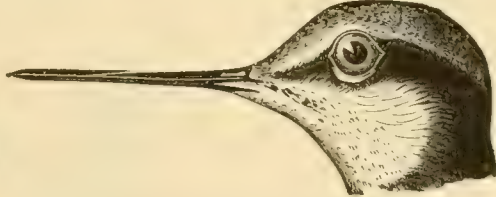
Subgenus PHALAROPUS.

81. *Phalaropus lobatus* (Linn.). NORTHERN PHALAROPE.

Rare migrant. Has been identified by Mr. C. A. Stockbridge at Fort Wayne.



Foot of Northern Phalarope.



Head of Wilson's Phalarope, nat. size.

Subgenus STEGANOPUS Vieillot.

82. *Phalaropus tricolor* (Vieill.). WILSON'S PHALAROPE.

Rare migrant southward, summer resident northward. One killed near Frankfort, about May 1, 1883, and another one near same place about the same date, 1877 (Newlin). Common summer resident. Breeds in Lake County (Toppan). Mr. J. G. Parker records them breeding near the State line in Lake County, also. He says they "leave for the South very early, generally by the last of July or first of August." I have shot them near the State line in Cook County, Illinois, late in May.

FAMILY RECURVIROSTRIDÆ. AVOCETS AND STILTS.

GENUS RECURVIROSTRA LINNÆUS.

83. *Recurvirostra americana* Gmel. AMERICAN AVOCET.

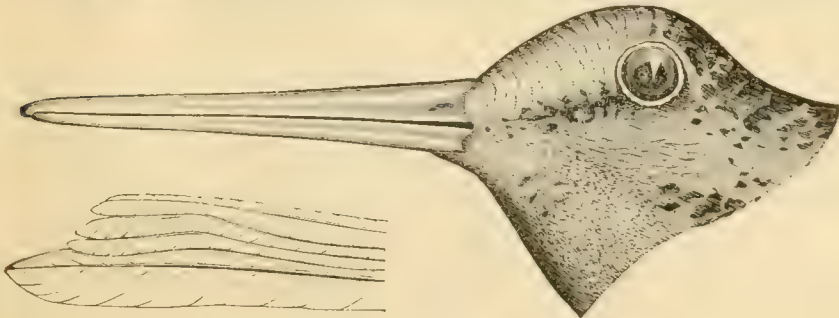
Rare migrant. I only know of one record from the State. Mr. Chas. Dury informs me of a specimen in the collection of the Cuvier Club, Cincinnati, Ohio, from "Calumet," Ind.

FAMILY SCOLOPACIDÆ. SNIPES, SANDPIPERS, ETC.

GENUS PHILOHELA GRAY.

84. *Philohela minor* (Gmel.). AMERICAN WOODCOCK.

Resident in the southwestern part of the State, and summer resident throughout the remainder. Common in suitable localities. They pass northward in



Woodcock, with attenuate primaries, nat. size.

March and return in November. They breed very early, eggs often being found late in March - March 20, March 28, March 23, are dates of first observed for three years. In the Whitewater Valley, owing to lack of suitable localities, they are scarce. Still, in favorable places, a few rear their young each year. Mr. H. W. McBride reports it in Dekalb County, February 14, 1890.



Snipe.

GENUS GALLINAGO LEACH.

*85. *Gallinago delicata* (Ord). WILSON'S SNIPE.

Common migrant, rare summer resident northward. Breeds. It has been found within the State from March 7 to Nov. 27, to my knowledge. Perhaps within the counties of the extreme southern part some may spend the winter. They have been found breeding sparingly in the following counties: Miami (Cunningham), Lake (Meyer), Starke (Deane). Mr. G. Frean Morcom, Chicago, Ill., has a set of eggs which he obtained in Starke County. These Snipe vary much in numbers and also in the time of their movements during the migrations. Some years they are found commonly early in March and other years not until early April; again, the bulk will leave one year by the middle of April and another year will be present into the early part of May. The same irregularity is noticeable in autumn. The early arrival of these birds in numbers on favorite snipe grounds in the fall of 1889, was noticed by all sportsmen. "On September 1st they were so numerous a good shot could have killed forty or fifty birds in many localities in Indiana and Illinois. * * * Something has driven thousands from the North; some claim it is due to very dry weather north of us." (Deane.) Known by the names "English Snipe," "Common Snipe," "Jack Snipe" and "Gutter Snipe."

GENUS MACRORHAMPHUS LEACH.

86. *Macrorhamphus griseus scolopaceus* (Say). LONG-BILLED DOWITCHER; "GRAY-BACK;" RED-BELLIED SNIPE.

Rare migrant. It has been reported from Allen County (Stockbridge), Starke County (Deane), Putnam County (Black), White County, Chalmers (Dury). I have referred to this form all the records of Red-bellied Snipe from this State for the reasons that all the specimens I have examined, have been this form; and Mr. Ridgway gives only this as occurring in Illinois. So far as I can learn the shorter-billed form has not been distinguished within our limits..

GENUS TRINGA LINNÆUS.

Subgenus ACTODROMAS KAUP.

87. *Tringa maculata* Vieill. PECTORAL SANDPIPER; JACK SNIPE; GRASS SNIPE.

Common migrant. Found in flocks during the migrations. They pass northward from the middle of March to early May, and sometimes are very abundant in September and October, on their way south. I can not learn that they breed within the State.

88. *Tringa minutilla* Vieill. LEAST SANDPIPER.

Migrant, not common. A few are summer residents northward. They leave for the South early in September.

Subgenus PELIDNA CUVIER.

89. *Tringa alpina pacifica* (Coues). RED-BACKED SANDPIPER.

Rare migrant. Mr. H. K. Coale informs me that Mr. Geo. F. Clingman shot a specimen of this bird, which was brought to him, on the shore of Lake Michigan, in Lake County, June 1, 1879. This is very late for the occurrence of this form so far south.

GENUS EREUNETES ILLIGER.

90. *Ereunetes pusillus* (Linn.). SEMIPALMATED SANDPIPER.

Migrant; generally rare, but in some localities not uncommon; possibly summer resident northward. Prof. Evermann says: "A few breed (?) (Birds Carroll County, Ind., "The Auk," October, 1888, p. 349). "A few may be seen on shore of Lake Michigan during August." (Parker.)

GENUS CALIDRIS CUVIER.

91. *Calidris arenaria* (Linn.). SANDERLING.

Migrant; in most localities rare, but very common in flocks on the shore of Lake Michigan in late summer and early autumn. Mr. H. K. Coale, J. Grafton Parker and Geo. L. Toppan, has each, several times, found them very abundant along the shore in Lake County in August and September. I do not know that the species has been found elsewhere in the State, but it has been found on several occasions on the Ohio River, near Cincinnati.

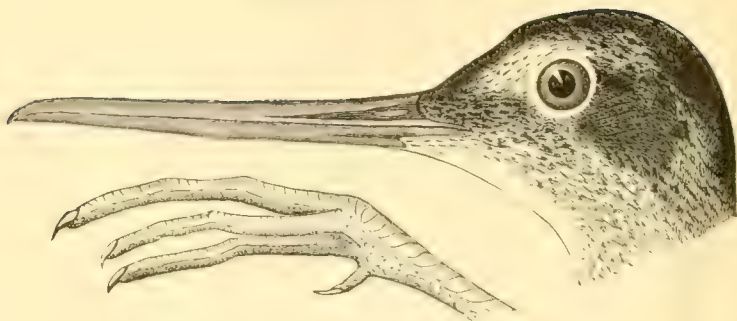
GENUS LIMOSA BRISSON.

92. *Limosa fedoa* (Linn.). MARBLED GODWIT.

Rare migrant at this time, so far as I can learn, although Mr. Chas. Dury assures me it was "abundant at Chalmers in former years." Prof. Evermann has reported it from Carroll County. ("The Auk," October, 1888, p. 348.) "Not uncommon about the lake" (Michigan). (Brayton.)

93. *Limosa hæmastica* (Linn.). HUDSONIAN GODWIT.

"Not very rare about the lake" (Michigan). (Brayton.)

GENUS *TOTANUS* BECHSTEIN.Subgenus *GLOTTIS* Koch.

Head and foot of Greater Yellow-legs, nat. size.

94. *Totanus melanoleucus* (Gmel.). GREATER YELLOW-LEGS.

Migrant; rare over the southern part of the State, more common northward. Possibly rare resident northward. Three reported from English Lake, June 3, 1888. (Deane.) Common at Wolf and George Lakes in August. (Parker.)

* 95. *Totanus flavipes* (Gmel.). YELLOW-LEGS.

Common migrant, most numerous northward, where they are summer residents in some numbers, and occasionally breed. Mr. L. T. Meyer informs me he obtained a set of four eggs in Calumet Marsh, Lake County, in 1885. In the fall they sometimes are found in very large flocks about the marshes of Northern Indiana. This was especially noticeable along the Kankakee River, September 1, 1889. (Deane.)



Head of Solitary Sandpiper, nat. size.

Subgenus *HELIODROMAS* Kaup.96. *Totanus solitarius* (Wils.). SOLITARY SANDPIPER.

Summer resident in some numbers, most common northward. Breeds. More often found along the streams and about the ponds in the woods. Known locally as "Peet-weet," "Teëter Snipe," and "Tilter."

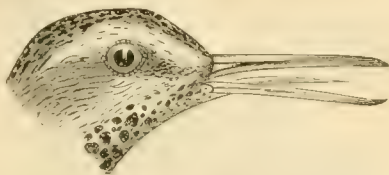
GENUS *SYMPHEMIA* RAFINESQUE.97. *Symphemia semipalmata* (Gmel.). WILLET.

Rare migrant. While it has been reported throughout the State, I do not learn that it is common anywhere. Possibly some may remain throughout the summer.

GENUS *BARTRAMIA* LESSON.98. *Bartramia longicauda* (Bechst.). BARTRAMIAN SANDPIPER; BARTRAM'S TATTLER; FIELD PLOVER; UPLAND PLOVER; PRAIRIE PLOVER.

Migrant and summer resident. Over most of the southern part of the State rare, but in the more open or prairie districts they are summer residents. Has been found breeding in Knox and Gibson counties (Ridgway.) Mr. Dury reports

it breeding in several localities in the northern part of the State, and Mr. Coale reports young able to run July 4, 1881, in Lake County.



Head of Spotted Sandpiper, nat size.

GENUS *ACTITIS* ILLIGER.

*99. *Actitis macularia* (Linn.). SPOTTED SANDPIPER; "PEET-WEET"; "SANDPIPER."

Common summer resident, frequenting the banks and sandbars of streams. Breeds.



Long-billed Curlew.

GENUS *NUMENIUS* BRISSON.

100. *Numenius longirostris* Wils. LONG-BILLED CURLEW.

Migrant, not common. Has been reported from the following counties: Decatur, May, 1883, (Guthrie); Knox and White (Dury); Allen (Stockbridge).

101. *Numenius hudsonicus* Lath. HUDSONIAN CURLEW; "JACK CURLEW."

Rare migrant with the preceding. (Brayton.)

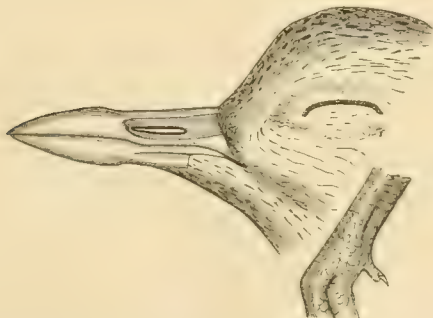
102. *Numenius borealis* (Forst.). ESKIMO CURLEW.

Rare migrant. Reported by Mr. Dury from Vincennes and Chalmers.

FAMILY CHARADRIIDÆ PLOVERS.

GENUS *CHARADRIUS* LINNÆUS.

Subgenus *SQUATAROLA* Cuvier.

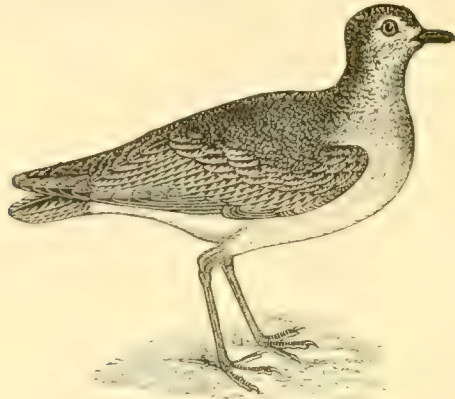


Black-bellied Plover, nat. size.

103. *Charadrius squatarola* (Linn.) BLACK-BELLIED PLOVER.

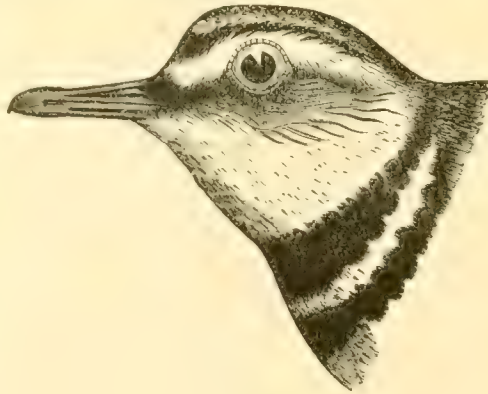
Rare migrant. A pair were shot at Davis Station, Starke County, May 15, 1884, (Coale.) Reported from Knox County, March 30, 1888. (Balmer.)

Subgenus CHARADRIUS Linnæus.

104. *Charadrius dominicus* MüV. AMERICAN GOLDEN PLOVER.

Golden Plover, winter plumage.

Migrant, generally somewhat rare, but in some localities in the northern part of the State common. Formerly they were abundant, but their numbers have greatly diminished.



Killdeer Plover.

GENUS ÆGIALITIS BOIE.

Subgenus OXYECHUS Reichenbach.

105. *Ægialitis vocifera* (Linn.). KILLDEER.

Resident southward, at least some winters; northward summer resident. Common. Breeds. A well known bird whose voice distinguishes it.

Subgenus ÆGIALITIS Boie.

106. *Ægialitis semipalmata* Bonap. SEMIPALMATED PLOVER.

Migrant, not uncommon; more frequent in the northern part of the State.

107. *Ægialitis meloda* (Ord). PIPING PLOVER.

Migrant. The two forms have not been fully separated in this State. The next seems to be more common, but this form is at least sometimes found. Mr. Deane noted both forms at English Lake, May 17, 1891.

108. *Ægialitis meloda circumcincta* Ridgw. BELTED PIPING PLOVER.

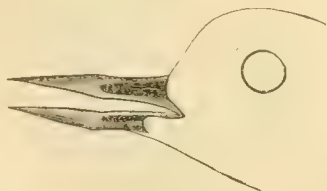
Migrant, not common. Summer resident northward. Mr. H. K. Coale informs me of the capture of three specimens in Lake County, one at Tolleston, May 1, 1880, and a pair near Whiting, May 25, 1879. "Late in May, 1885, I saw a pair of Belted Piping Plover on a sandbar in the White river north of Wheatland, Indiana." (Ridgway.) There is a specimen in the collection of Prof. H. Duemling, Ft. Wayne, taken near that place. (Stockbridge.) "Common summer resident along the shore of Lake Michigan." (Brayton.)

FAMILY APHRIZIDÆ. SURF BIRDS AND TURNSTONES.

SUBFAMILY ARENARIINÆ. TURNSTONES.

GENUS ARENARIA BRISSON.

109. *Arenaria interpres* (Linn.) TURNSTONE.



Bill of Turnstone.

Rare migrant southward. "Common along Lake Michigan." (Brayton.) Reported by Dr. Haymond from Franklin County. (Ind. Geol. Rept., 1869, p. 228.) Identified by Mr. Ruthven Deane in Starke County May 20, 1888.

ORDER GALLINÆ. GALLINACEOUS BIRDS.

SUBORDER PHASIANI. PHEASANTS, GROUSE, PARTRIDGES,
QUAIL, ETC.

FAMILY TETRAONIDÆ. GROUSE, PARTRIDGES, ETC.

SUBFAMILY PERDICINÆ. PARTRIDGES.

GENUS COLINUS LESSON.

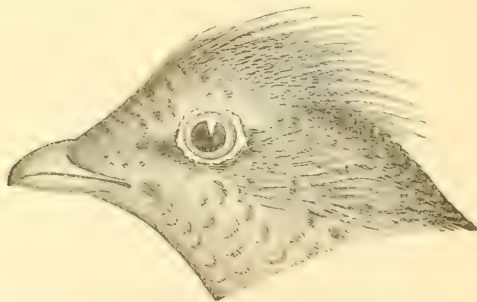
110. *Colinus virginianus* (Linn.) BOB-WHITE, "QUAIL."

Resident, common in most places. In the vicinity of our larger cities and in the north western part of the State they are becoming scarce. Breed. The past fall and winter—1890-1—they have been more numerous in most localities in southern Indiana, at least, than for more than ten years. The winter of 1878-9 they were almost exterminated by reason of the severe weather and their inability to procure food. Whole covies were found in many localities dead where they had "huddled" together. For several years thereafter but few were found, but their abundance through the past season has been remarked and many are left for next year. In late October and through November our quails seem to desire to migrate. Hunters say they become crazy. They come into towns and cities in flocks, are readily caught in the hand, and many are killed by flying against obstructions. They seem lost and continually call for their mates, while they also are very tame. It is noticed that farms which had several flocks on them throughout the summer are deserted by Bob-whites—Quails, as we know them—in November, while others

which had none or few birds reared upon them may be found to be the quarters of several flocks. Some seasons they appear to mortly desert the uplands and seek the river valleys. The past fall attention was called to the scarcity of Bob-whites when the shooting season opened. Throughout the uplands few or no birds were found in most localities, although they were abundant but a few weeks before; the river "bottoms" seemed to have an increased number on them, but doubtless the greater number attempted a southern migration. From the best information I can obtain the low lands bordering the Ohio river were occupied by these birds in great numbers, many of them crossed the river into Kentucky, and many others perished in the attempt to cross the stream. I have been told that when they reached Kentucky they were exhausted and many of them were killed and trapped without much effort and without the use of a gun. I have not learned of the occurrence within our limits of the Florida Bob-white (*Colinus virginianus floridanus* (Coates)), which may be found in the extreme southern part of the State, since it has been found in southern Illinois (Nelson, Bull. Essex Inst., Vol. IX, 1877, p. 43.) These birds are also termed "Partridges." The advantages of these birds as destroyers of weed seeds are well known, but they are even more beneficial as destroyers of noxious insects.

GENUS BONASA STEPHENS.

111. *Bonasa umbellus* (Linn.). RUFFED GROUSE; PARTRIDGE; PHEASANT.



Head of Ruffed Grouse, nat. size.

Resident. Breeds. In the more densely wooded districts they are common; elsewhere they are rare and some places wanting. In the lower Whitewater Valley I think they are as numerous, perhaps more so, than twenty years ago. Mr. Ridgway has called attention (Bull. No. 4, Ill. State Laboratory of Nat. Hist., p. 191) to the fact that the Ruffed Grouse of southern Illinois have rufous tails, while those of the northern part of the State have gray tails—which he suggests is perhaps due to climatic influences. I have never examined these birds from northern Indiana, but throughout the southern part of the State, so far as I have noticed, the birds have rufous tails.

GENUS TYMPANUCHUS GLOGER.

112. *Tympanuchus americanus* (Reich.). PRAIRIE HEN.

Resident over the northern and western part of the State. Breeds. Formerly very abundant, but now becoming scarce in most localities. I have received reports of its occurrence in the following counties: Knox (Balmer), Allen (Stockbridge), Carroll (Evermann), Clinton (Halleck), Lake (Meyer, Coale), Porter (Trouslet), Starke (Deane), Dekalb, Steuben and Noble (McBride). Mr. Coale reports finding a nest July 4, 1884, at Tolleston with thirteen eggs—the usual number is eight to twelve. Known locally as "Pinnated Grouse," "Prairie Chicken" or "Chicken."

FAMILY PHASIANIDÆ. PHEASANTS, ETC.

SUBFAMILY MELEAGRINÆ TURKEYS.

GENUS MELEAGRIS LINNÆUS.

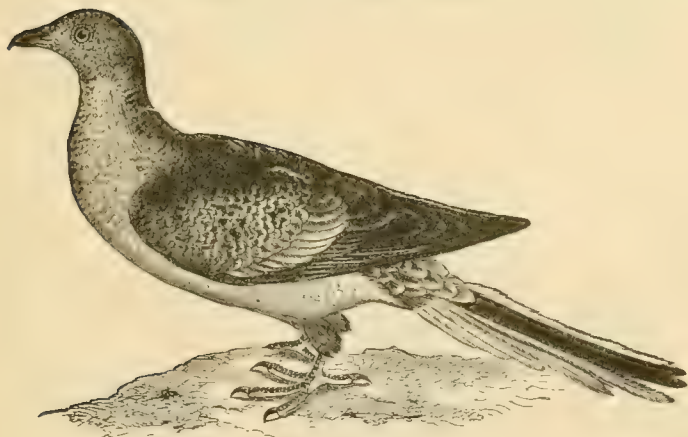
*113. *Meleagris gallopavo* Linn. WILD TURKEY.

Resident. Breeds. Formerly common throughout the State, but now extinct in most places. It is still probably found in the following counties: Knox (Balmer), Monroe (Evermann), Grant (Davis), Dekalb (McBride) and Jefferson (Bain); possibly others. In 1882 Mr. Ridgway reported them as common in Knox County (Bull. Nuttall Orn. Club, January, 1882, p. 21). In 1879 they were reported as "occasionally seen in Marion County" (Brayton). None have been seen in the Whitewater Valley for perhaps eleven years, but I am informed they have been killed in Ripley County within the past few years, and it is possible some are to be found there even yet. Mr. H. F. Bain informs me of the capture of one from a flock of seven near Deputy, Jefferson County, December 25, 1889. The old farmers love to tell of turkey hunts and of their captures of turkeys in traps. These traps were log pens, with a passage-way under one side to admit the turkeys. They were induced to enter the pen by following a train of shelled corn, and when within the pen it is said they would look up and try to get out of the top of the pen and never look down to see where they came in.

ORDER COLUMBÆ. PIGEONS.

FAMILY COLUMBIDÆ. PIGEONS.

GENUS ECTOPISTES SWAINSON.



Passenger Pigeon.

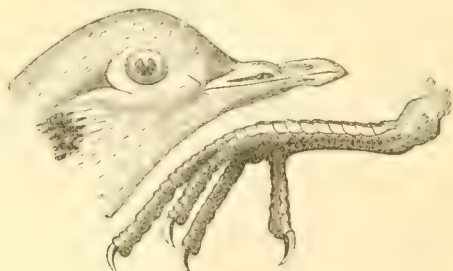
*114. *Ectopistes migratorius* (Linn.). PASSENGER PIGEON; WILD PIGEON.

Migrant; formerly very abundant but now rare; also rare resident. Have found them frozen to death in severe weather in the winter. Occasionally breeds here, as it does throughout the State. They are becoming rarer every year. It is

difficult for a young person to appreciate the accounts the older inhabitants give of the former abundance of these birds. I am indebted to my father, now over eighty years of age, and a native of the State, for many facts relating to these and also other birds. He says in 1831-2 the pigeon roosts in the vicinity of Vernon, which had become noted as the most extensive in that part of the State, were occupied by great numbers of pigeons. They moved in flocks so large the sky could not be seen in any direction as far as the eye could reach. They also nested in that locality in great abundance. The "roost" in the vicinity of Brookville in the months of January and February, 1854, while not so large as many others, was so near home that accounts of it made an impression upon my mind. One evening when it was cloudy my father went with a company of friends to it. The birds were much frightened by the shooting about their roost, and just after sundown arose *en masse* and soared out of sight in the dusk of the winter evening, while from the direction of the cloud came a noise as of a violent windstorm. As the darkness increased the multitude descended and alighted upon the limbs of the forest trees in such numbers as to break many off. After night the scene is described as one never to be forgotten. The squawking of the pigeons, the breaking of the limbs of giant trees beneath their living weight, the continuous rumble arising from the whirr of countless wings, the rapid firing of guns, produced an effect which no words can convey to one who has not experienced a night at a "pigeon roost." In 1869 Dr. Haymond said, "still seen in large numbers, though evidently they have been constantly diminishing in numbers for the last forty years, and are probably not half so numerous as they formerly were."

I can remember a number of interesting flights in my boyhood, but the last was seen in the fall of 1877, when a few hundred represented the countless numbers of a half century or less ago. Mr. William Brewster visited the localities so well known as breeding grounds for pigeons throughout Michigan in the spring of 1888. While the pigeons had not made the flight they had in former years, still he assures us the flight was a large one. They passed beyond the lower peninsula and doubtless found a breeding ground remote from persecution. Mr. Brewster is of the opinion that there are left enough pigeons to restock the West, provided they could be protected by adequate laws. ("The Auk," October, 1889, p. 285 et. seq.)

GENUS ZENAIIDURA BONAPARTE.



Head and foot of Carolina Dove, nat. size.

*115. *Zenaidura macroura* (Linn.). MOURNING DOVE; CAROLINA DOVE; TURKLE DOVE.

Common summer resident northward; southward common resident; a few pass the winter as far north as Terre Haute (Blatchley), Carroll County, Monroe County (Evermann), Richmond (McCoy), and possibly even further north. They mate early and their nests with complement of eggs are often found early in April.

Their usual place of nesting is in a tree or bush from four to fifteen feet from the ground. In the bushes along the river banks their nests are especially numerous. They select as a nesting site Honey-Locusts (*Gleditsia*) or Thorn (*Crataegus*) perhaps more often than all other trees with us. Occasionally nests are found built upon the ground, as they are throughout the treeless region of the West, but such is not often the case with us.

ORDER RAPTORES. BIRDS OF PREY.

SUBORDER SARCORHAMPHI. AMERICAN VULTURES.

FAMILY CATHARTIDÆ. AMERICAN VULTURES.

GENUS CATHARTES ILLIGER.

116. *Cathartes aura* (Linn.). TURKEY VULTURE; TURKEY BUZZARD; "BUZZARD."

Common resident in the southern part of the State; in mild winters over the greater part of the southern half at least. When the winters are severe they are sometimes absent for a few weeks. Northward they are common summer residents. Breed. In Lake County Mr. Meyer reports it rare. "Buzzard Roosts" are to be found in a number of localities in the State, to which the vultures over a considerable area of country come regularly. One of these that is well known in Southern Indiana, is on the East Fork of Whitewater between Brookville and Fairfield. These birds are usually known as "Turkey Buzzards" or "Buzzards." The people think very much of them and protect them.

GENUS CATHARISTA VIEILLLOT.

117. *Catharista atrata* (Bartr.). BLACK VULTURE; CARRION CROW.

Resident in the southern part of the State, not common. Has been reported as far north as Knox, Monroe, Decatur and Franklin counties. Mr. Ridgway informs me of its breeding in Knox and Gibson counties, and it has been noted as breeding Franklin County. In the lower Whitewater Valley they are most often seen in winter. They are known to our people as "Carrion Crow."

SUBORDER FALCONES. VULTURES; FALCONS; HAWKS; ETC.

FAMILY FALCONIDÆ. VULTURES; FALCONS; HAWKS; ETC.

SUBFAMILY ACCIPITRINÆ. KITES; BUZZARDS; HAWKS; ETC.

GENUS ELANOIDES VIEILLLOT.

118. *Elanoides forficatus* (Linn.). SWALLOW-TAILED KITE.

Rare summer resident in the southern part of the State, of rare and irregular occurrence northward. Has been reported from Franklin County (Haymond, Indiana, Geol. Rep't. 1869, page 210); Monroe County—two, Aug. 18, 1885 (Evermann); Decatur County, July, 1883 (Guthrie); Allen County—"one killed about 1885 and brought to me" (Stockbridge); Clinton—"one killed near Frankfort several years ago and now in possession of a man near there" (Newlin); and Knox County, where Mr. Ridgway says it is a summer resident, but much less common than formerly.

GENUS *ICTINIA* VIEILLOT.119. *Ictinia mississippiensis* (Wils.). MISSISSIPPI KITE.

Rare summer resident in the southwestern part of the State; rare visitor elsewhere. Mr. Ridgway informs me that it is found about the cypress ponds of Knox County from May 15 to September. He notes that it breeds. Mr. Chas. Dury writes me that he has a specimen of a Mississippi Kite, which was sent to him from Lafayette several years ago, and which he supposes was killed near that place.



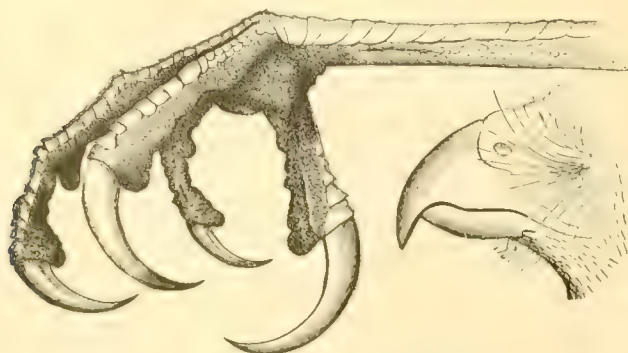
Head of Marsh Harrier.

GENUS *CIRCUS* LACEPEDE.120. *Circus hudsonius* (Linn.). MARSH HAWK.

Resident northward, winter resident southward. Breeds. Throughout the southeastern part of the State they are of irregular occurrence in fall, winter and spring, and are never common. In the northern part of the State they are more common. Mr. Deane writes me of a nest and six eggs taken May 19, 1889, at English Lake.

GENUS *ACCIPITER* BRISSON.Subgenus *ACCIPITER*.121. *Accipiter velox* (Wils.). SHARP-SHINNED HAWK.

Resident throughout the State; rather rare southward, but more common in the northern part. In some localities very common. Most numerous during the migrations. I unfortunately have but two reports of its breeding in the State—Lake County (Meyer) and Dekalb County (McBride).



Bill and foot of Cooper's Hawk, nat. size.

*122. *Accipiter cooperi* (Bonap.). COOPER'S HAWK.

Resident; generally common, but in some localities rare. Most numerous in summer. Breeds. Common in the Whitewater Valley. This and the last preceding species are great depredators. Bob-whites, poultry and birds suffer greatly from these enemies, but on the other hand they are very destructive to small mammals. They are commonly known as "Blue Hawk," "Blue-tailed Hawk," "Quail Hawk," and "Long tailed Dart."

Subgenus *ASTUR* LACEPEDE.

123. *Accipiter atricapillus* (Wils.). AMERICAN GOSHAWK.

Rare winter visitor. Mr. J. G. Parker reports one from Lake County, in April, 1889. Dr. Stein informs me of its identification by him on the lower Wabash. I have, in my collection, a specimen taken near Brookville.

GENUS *BUTEO* CUVIER.

*124. *Buteo borealis* (Gmel.). RED-TAILED HAWK.

Common resident throughout the State. Breeds. This is the common "Hen Hawk," or "Rabbit Hawk" of the farmers.

*125. *Buteo lineatus* (Gmel.). RED-SHOULDERED HAWK.

Resident throughout the State in varying numbers. Over the northern part of the State they are abundant in summer, where they breed most plentifully. They are, however, not so numerous there in winter. Mr. Ridgway notes that it is the "most numerous of the Hawks," in Knox County. (Bull. Nuttall, Orn. Club, Jan., 1882, p. 21.) He writes me that it breeds there. Professor Evermann says it is about as numerous as *B. borealis* in Monroe County, and is common in Vigo County. From this it would appear to be a common species throughout the lower Wabash Valley. In the Southeastern quarter of the State, however, ranging northwest past the center as far as Carroll County they appear to be uncommon, and, perhaps, most numerous in winter.

126. *Buteo latissimus* (Wils.). BROAD-WINGED HAWK.

Resident; rare in most localities. Most numerous in spring and fall. Mr. Ridgway reports it breeding in Knox and Gibson counties.

GENUS *ARCHIBUTEO* BREHM.

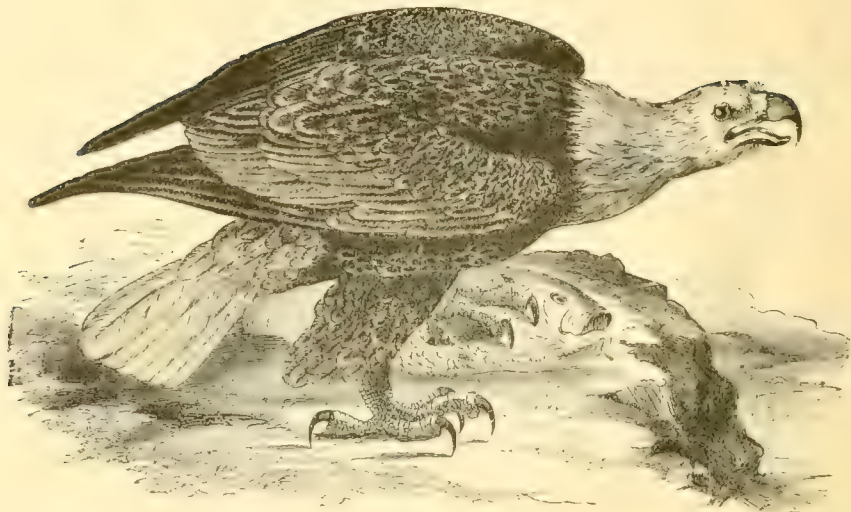
127. *Archibuteo lagopus sancti-johannis* (Gmel.). AMERICAN ROUGH-LEGGED HAWK.

Winter visitor, usually very rare in most places. Mr. J. G. Parker says: "It is the most common Hawk during the winter." (Lake County.) In the winter of 1886-87 these birds with many other species of rapacious birds spread over the States north of the Ohio River in great numbers. Throughout Indiana this was one of the most common species, and they remained until about April 1. The specimens obtained represented almost every gradation of color from very light to black.

GENUS *AQUILA* BRISSON.

128. *Aquila chrysaetos* (Linn.). GOLDEN EAGLE.

Winter visitor, perhaps winter resident; of regular occurrence but not common. Have been reported from the State as late as April 25. I am unable to learn of its breeding within our limits.

GENUS *HALIAETUS* SAVIGNY.

Bald Eagle.

129. *Haliaeetus leucocephalus* (Linn.). BALD EAGLE.

Resident locally, but distributed over the State in fall, winter and spring. Formerly they were resident over all the State. In the Whitewater Valley, where they formerly bred, and in fact over most of southern Indiana, none are now known to nest. They have been reported breeding in the following counties: Lake (McBride), Laporte (Byrkit), Starke (Deane), Knox and Gibson (Ridgway). They formerly bred in Franklin County. Most people think there are more kinds of eagles in our State than these two. The young in their second year have greater stretch of wing and tail and appear larger than do adults. These are commonly called "Gray Eagles." Still younger individuals in the black plumage are called "Black Eagles," which name is also sometimes applied to the Golden Eagle. The "Washington Eagle" is a large immature specimen of this species. This and the Golden Eagle are the only eagles in the United States.

SUBFAMILY FALCONINÆ. FALCONS.

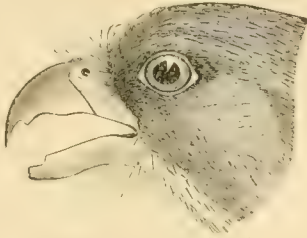
GENUS *FALCO* LINNÆUS.Subgenus *RYNCHODON* Nitzsch.130. *Falco peregrinus anatum* (Bonap.). DUCK HAWK.

Resident locally perhaps, but generally migrant, and winter visitor. It is rare, save in the Lower Wabash Valley, where Mr. Ridgway says it is not rare. Has been reported breeding by Mr. Ridgway in Knox and Gibson counties. It is unknown in the southeastern part of the State.

Subgenus *ÆSALON* Kaup.131. *Falco columbarius* Linn. PIGEON HAWK.

Resident northward, migrant southward; rare. It is very rare in southeastern Indiana. I have no authentic account of its breeding in the State, though it probably does.

Subgenus TINNUNCULUS Vieillot.

*132. *Falco sparverius* Linn. AMERICAN SPARROW HAWK; "LIT-LIT."

Head of Sparrow Hawk.

Common resident. Breeds. This is without doubt our most common hawk.

SUBFAMILY PANDIONINÆ. OSPREYS.

GENUS PANDION SAVIGNY.

*133. *Pandion haliaëtus carolinensis* (Gmel.). AMERICAN OSPREY.

Migrant; in mild winters winter resident, and probably resident southward. Locally it is summer resident northward. In the vicinity of Michigan City, it is "abundant along the lake in summer," (Byrkit); Starke County, June 10, 1888, (Deane); Mr. Ridgway informs me of its breeding in Knox and Gibson counties. Along water courses and about lakes they are often seen during the migrations, but other places they are rare. In southeastern Indiana, never seen in summer. Generally called "Fish Hawk" or "Fishing Eagle."

SUBORDER STRIGES. OWLS.

FAMILY STRIGIDÆ. BARN OWLS.

GENUS STRIX LINNÆUS.

*134. *Strix pratincola* Bonap. AMERICAN BARN OWL.

Foot of Barn Owl, natural size.

Of irregular occurrence, found at all times of the year; in some localities apparently resident. Has been reported from almost all parts of the State. Found breeding in the following counties: Vigo, about July 18, 1890 (Evermann); Tippecanoe, about June 15, 1890 (F. C. Test). I ascertained that they also bred

near Frankfort, Clinton County, in the summer of 1889. They were more numerous than I have ever known them in the State during the summer of 1889, the succeeding winter and the past summer, 1890.) The fall of 1883 they appear to have been somewhat common in southern Indiana and Ohio. The month of October of that year they were particularly numerous. Mr. Dury gave an account of a company of these occupying the tower of the town hall at Glendale, O., and also of their occurrence in several neighboring localities at that time. (Journ. Cin. Soc. Nat. Hist., Dec., 1883.)

FAMILY BUBONIDÆ. HORNED OWLS, ETC.

GENUS ASIO BRISSON.

135. *Asio wilsonianus* (Less.). AMERICAN LONG-EARED OWL.

Uncommon resident northward; most numerous in fall, winter and spring, when it is also found occasionally over the southern part of the State. More numerous some years than others. Has been found breeding in Dekalb County, where Mr. Herbert W. McBride caught two young ones April 29, 1890.

136. *Asio accipitrinus* (Pall.). SHORT-EARED OWL; PRAIRIE OWL.

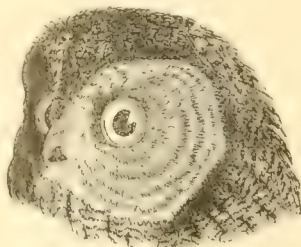
Irregular winter resident, occasionally common; resident in some numbers northward. Breeds. Two nests of the Short-eared Owl were found at English Lake about May 6, 1890, one containing three young and two eggs, the other three young. (Deane.)

During the winter of 1886-7, when owls and hawks of several species invaded the States north of the Ohio river in such unusual numbers, this was the most common species. They frequented pastures, cleared fields and roadsides. It was not uncommon to see several of these birds at one time, either flying or alighted. They are reported to have been in flocks, in some cases as many as twenty-five in a flock. Dr. Langdon notes that, during February, 1877, a young man who was crossing a partially inundated field counted these birds as they arose before him, and at one time there were thirty in the air. There was only one tree in the field and they all alighted on that tree. (Journ. Cin. Soc. Nat. Hist., Vol. XII, 1889, p. 59.)

GENUS SYRNIUM SAVIGNY.

137. *Syrnium nebulosum* (Forst.). BARRED OWL.

Common resident, breeds. This is well known as the "Hoot Owl." Perhaps not so common in the Whitewater valley as in other localities.



Head of Barred Owl.

GENUS SCOTIAPTERYX SWAINSON.

138. *Scotiapteryx cinerea* (Gmel.). GREAT GRAY OWL.

Rare winter visitor. Has been reported from Franklin County, where Mr. E. R. Quick notes its capture several years ago. "Rare winter visitant in the north part of the State." (Brayton.)

GENUS NYCTALA BREHM.

139. *Nyctala acadica* (Gmel.). SAW-WHET OWL; ACADIAN OWL.

Winter resident southward, of irregular occurrence, usually rare. Probably resident northward. Breeds. Prof. B. W. Evermann thus describes finding its nest in Carroll County, May 8, 1883: "In an old thicket near Burlington I found six young Saw-whets in a hole in a dead elm. The hole was about twenty feet from the ground and the young Owls were able to fly quite well." (The Auk, October, 1888, p. 351.) They, too, are comparatively numerous some years. In the winter of 1886-7 they were quite generally distributed over the State, and were by no means rare. Dr. A. W. Brayton informs me that winter they were rather common in Indianapolis.

GENUS MEGASCOPS KAUP.

140. *Megascops asio* (Linn.). SCREECH OWL; LITTLE RED OWL; LITTLE GRAY OWL; MOTTLED OWL.

Screech Owl.

Common resident. Breeds. They vary in numbers. Some years in winter they are actually abundant. The fact that this species is found in both the red and gray plumage leads many to think they are distinct forms; such is not the case. Mr. Ridgway has shown that in the Wabash Valley fully 95 per cent. of the Screech Owls are red. He intimates that the number of red forms may bear a

decided relation to the humidity of the atmosphere, and evidences this by the preponderance of red Screech Owls in the Mississippi Valley, while east of the Alleghenies the gray phase predominates (Proc. U. S. Nat. Mus., 1878, p. 108). In an investigation made by Dr. F. W. Langdon of a collection of Screech Owls made from southeast Indiana and southwest Ohio, he showed that of fifty-six specimens examined thirty-two were red and twenty-four gray. While the proportion determined by Mr. Ridgway does not hold here, the red phase predominates (Jour. Cin. Soc. Nat. Hist., April, 1882, pp. 52-53). It however seems probable that this prevalence of the red phase, in some parts of our State at least, does not continue. Prior to 1882 I can remember when in Franklin County a red Screech Owl was rare; nearly all were gray. In the winter of 1886-87 red ones were abundant and gray ones exceedingly rare. Throughout the northern part of the State it has been usually understood that the gray form predominated, but some years the red phase is much more common. Prof. Evermann says of Carroll County: "In 1877-79 we got a good many Screech Owls at Camden, perhaps twenty all told, and I think there were only four or five red ones. Since 1885 I have seen four or five at Burlington, all red. Since 1886, at Terre Haute, I have seen perhaps fifteen or twenty, and only three or four of them were gray."

GENUS BUBO CUVIER.

141. *Bubo virginianus* (Gmel.). GREAT HORNED OWL.



Great Horned Owl.

Common resident. Breeds. The most common owl, excepting the Screech Owl. Known as "Long-Eared Owl."

GENUS NYCTEA STEPHENS.

142. *Nyctea nyctea* (Linn.). SNOWY OWL.

Snowy Owl.

Winter visitor, generally rare. Probably occurs every winter in the northern part of the State, but is irregular southward. Some years they are much more numerous than others. The winter of 1886-7 they were found all over the State in some numbers. In some localities several were taken. The winter of 1885-6 they were more numerous than usual. They seldom are seen in the lower White-water Valley.

GENUS SURNIA DUMERIL.

143. *Surnia ulula caparoch* (Müll.). AMERICAN HAWK OWL.

Rare winter visitor. The only record I know is that of Mr. E. R. Quick, who identified it in Franklin County in January, 1878.

ORDER PSITTACI. PARROTS; MACAWS; PAROQUETS; ETC.

FAMILY PSITTACIDÆ.

GENUS CONURUS KUHLM.

*144. *Conurus carolinensis* (Linn.). CAROLINA PAROQUET.

Formerly found throughout the greater part if not all the State. Have been taken in Michigan; and Ohio, near the mouth of Maumee, and up the Wabash almost to its head. They were much more numerous in the southern part of the State. They were found in flocks of from six to a hundred individuals. Dr. Haymond mentions them as "formerly very numerous along the Whitewater river." (Proc. Phila. Acad., Nov. 1856, p. 293.) After some investigation I have secured approximately the dates when they were last seen in different

parts of the State. In 1806 they probably extended to its northern boundary. In 1835 they were last seen in Franklin County; 1839 in Switzerland County; 1832 in Marion County; 1836 in Monroe County; 1844 in Clark County; 1849 in Greene County; 1858 in Posey County, and with that the State. They have so contracted their range and become so reduced in numbers that none are probably now closer to us than Southwestern Missouri, Western Arkansas or Indian Territory. Over



Carolina Paroquet.

the southern portion of our State these birds were present throughout the year. It is said they roosted and bred in hollow-trees. Mr. W. B. Seward, of Bloomington, told me of his securing some young ones which were taken from a hollow-tree. They preferred the vallies of rivers and streams. In fall and winter their favorite food was the "cuckle-burr" or "cockle-burr" (*Xanthium canadense* Mill.) which grew abundantly on the river bottoms. In spring they were very destructive to orchards, biting out the tender shoots and eating the blossoms and young fruit. In summer they lived largely on fruit and grain.

ORDER COCCYGES. CUCKOOS, ETC.

SUBORDER CUCULI. CUCKOOS, ETC.

FAMILY CUCULIDÆ. CUCKOOS, ANIS, ETC.

SUBFAMILY COCCYGINÆ. AMERICAN CUCKOOS.

GENUS COCCYZUS VIEILLIOT.

" 145. *Coccyzus americanus* (Linn.). YELLOW-BILLED CUCKOO.

Common summer resident, arrives early in May and remains until early in October. April 23, 1888 (Greensburg), and October 13 (Sedan, Dekalb County)

are unusual dates. In Southern Indiana they mate soon after their arrival, and throughout June may be found nesting. I have found the nest with eggs at Brookville May 20. They are much more numerous in May and at that time may often be seen in numbers—one might almost say flocks—about the orchards and lawns,



Yellow-billed Cuckoo.

pursuing a relentless warfare against insects. A few years ago I had my attention attracted to these birds in an interesting way. In the early part of May I observed that the apple trees in my orchard were greatly infested by tent caterpillars. Early one morning I heard the unmistakable note of the Cuckoo. Taking my gun I went to the orchard to obtain a specimen for which I had been waiting. When I approached one of the trees nearest the house I saw a Cuckoo busily engaged among some caterpillars' nests. It seemed to be picking up something in its bill and dropping it to the ground. Upon investigation it was found to be picking out the larvæ and squeezing the juices from the body between its mandibles, then dropping the skins to the ground. The orchard seemed to be alive with these plain colored birds. By noon none were to be found, nor were there any caterpillars left. Every nest had been torn to shreds and the insects were all killed. These birds, of both species, are better known by the name "Rain Crow" than by any other term.

146. *Coccyzus erythrophthalmus* (Wils.). BLACK-BILLED CUCKOO.

Summer resident; northward as common or more so than the Yellow-billed species; southward it has been more rare, but Prof. Evermann informs me of late years in the central-western half of the State it has been more common than the other form. In the southeastern part of the State it is rare save during the migrations. It breeds throughout the State. The two species of Cuckoos are confounded by most people. Remarks which are made concerning the benefits of the Yellow-billed Cuckoo apply equally to this. The European Cuckoo is noted for its habit of depositing its eggs in the nests of other birds. Our species have been but very rarely found guilty of so doing.

SUBORDER ALCYONES. KINGFISHERS.

FAMILY ALCEDINIDÆ. KINGFISHERS.

GENUS CERYLE BOIE.

Subgenus STREPTOCERYLE Bonaparte.

147. *Ceryle alcyon* (Linn.). BELTED KINGFISHER.

Belted Kingfisher.

Common summer resident northward in suitable localities; resident southward, generally common, but during severe winters somewhat rare. In some localities, where nesting sites and running streams are not found, they are scarce. Where they are not resident they arrive in March or early April, and depart late in October or early November. Mr. H. W. McBride reported one from Dekalb County February 15, 1888. In the southern part of the State they often pair early in April, and in early May their nests will be found.

ORDER PICI. WOODPECKERS, WRYNECKS, ETC.

FAMILY PICIDÆ. WOODPECKERS.

GENUS CAMPEPHILUS GRAY.

148. *Campephilus principalis* (Linn.). IVORY-BILLED WOODPECKER.

Formerly a resident in the southern part of the State, perhaps not generally distributed; now extinct. Dr. Haymond notes it as a former resident of Franklin County, but says "none have been seen for many years." (Ind. Geol. Rept., 1869, p. 211.) He informed me they formerly were found in the swampy woodland in

the eastern part of the county about what were called the "Beaver Ponds." Prof. Evermann informs me that they were formerly found in Monroe County, also, having been identified many years ago by the late Louis Bollman.



Ivory-billed Woodpecker.

GENUS DRYOBATES BOIE.

*149. *Dryobates villosus* (Linn.). HAIRY WOODPECKER; VIRGINIA WOODPECKER.

Common resident; more numerous however in fall, winter and spring. Breeds. Known as "Big Sapsucker" and "Big Spotted Woodpecker" to distinguish it from its smaller relative which it so much resembles in coloration.

*150. *Dryobates pubescens* (Linn.). DOWNY WOODPECKER.

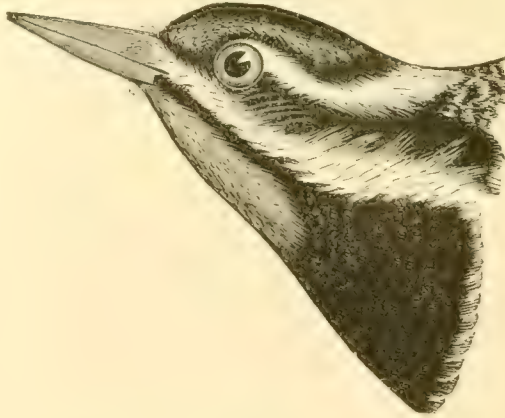


Head of Downy Woodpecker, nat. size.

Common resident; more numerous than the species last mentioned and more sociable, being found in company with many other species of birds in winter, wandering through the woods and thickets and orchards. Also more numerous in the southern part of the State, at least during fall, winter and spring. Called "Sapsucker" and "Little Spotted Woodpecker."

GENUS SPHYRAPICUS BAIRD.

*151. *Sphyrapicus varius* (Linn.). YELLOW-BELLIED WOODPECKER.



Head of Yellow-bellied Woodpecker, nat. size.

Common migrant; winter resident in some numbers southward; summer resident locally northward. It has been reported breeding in the following counties: Carroll (Evermann), Laporte (H. P. Coburn), Marion (Hay), Dekalb (Hine), Starke—English Lake, breeding June 3, 1888 (Deane). I do not know of their breeding in the southern part of the State. In Franklin County I have records running from September 24 to April 30. This is the true Sapsucker, and is generally known as that or "Yellow-bellied Sapsucker." They do great damage in spring to the fruit and shade trees, especially the sugar maple, *Acer saccharinum* (Wang.). They perforate the bark with holes arranged in bands or spirals about the trunk of the tree or larger limbs, from which the sap sometimes flows in streams. I have counted six of these birds on a dozen sugar maples in front of one lot in my own town. In winter they are especially severe on coniferous trees.

Norway pines in my yard have been girdled until they became puny, sickly trees and were cut down, and one tree was so girdled about two-thirds its height from the ground that it was broken off during a wind-storm. I am indebted to Mrs. Jane L. Hine for some very interesting notes on this species. She says that she first observed them in summer, in Dekalb County in 1888, and that year they were very common. She mentions seeing their young more often than those of any other woodpecker that summer. In the spring of that year Mrs. Hine, who is a faithful observer of nature and a careful recorder of her observations, while spending a day in the woods, was attracted by the actions of a Yellow-bellied Woodpecker which had tapped a young tree near its top. It would sip the sap and then wait for it to collect, and feed again. This was continued for several hours. The observer watched the bird from 10 o'clock in the morning until 5 in the evening, and left the woodpecker just where she first saw it. It had not moved more than a yard from the hole in the entire seven hours. Since 1888 they have bred rarely, if at all, in Dekalb County.

GENUS *CEOPHLEUS* CABANIS.

"152. *Ceophleus pileatus* (Linn.). PILEATED WOODPECKER.



Foot of Pileated Woodpecker, nat. size.

Formerly tolerably common resident; now extinct in many localities and rare in all others. Breeds. None have been seen in Franklin County for twenty years or more, and probably none are now to be found in the Whitewater Valley. It has been reported as present, but rare, in the following counties within the past few years: Monroe (Evermann, Blatchley), Vigo (Jenkins), Dekalb (McBride), Porter (Trouslet), Decatur (Shannon), Starke (Coale, Dury), Allen (Stockbridge), Gibson and Knox (Ridgway). Many are the interesting accounts given of these birds by the older citizens, who knew them as "Logcock," "Black Woodcock" and "Woodcock."

GENUS *MELANERPES* SWAINSON.

Subgenus *MELANERPES*.

"153. *Melanerpes erythrocephalus* (Linn.). RED-HEADED WOODPECKER.

A well known common species. Throughout the northern half of the State it is common from March to November usually, but it is occasionally also seen in winter. In Southern Indiana it is a resident most years, but it occasionally happens that few or none are seen in winter. In Southeastern Indiana they are not often noted in the river valleys in winter, but among the timber of the higher lands may usually be found, descending to the lower lands in February and March.

Subgenus CENTURUS Swainson.

154. *Melanerpes carolinus* (Linn.). RED-BELLIED WOODPECKER; "GUINEA WOOD-PECKER."

Resident throughout the State, more common in the southern portion. Prefers the denser woodlands and most often to be sought upon the uplands. These birds are quite shy and very suspicious.

GENUS COLAPTES: SWAINSON.

- 155 *Colaptes auratus* (Linn.). FLICKER; YELLOW HAMMER; HIGH-HOLE; GOLDEN-WINGED WOODPECKER.

Common throughout the State. Resident in numbers southward, but not common in winters northward. Throughout fall, winter and early spring they are gregarious and may be found feeding in companies upon the meadows and stubble fields.

ORDER MACROCHIRES. GOATSUCKERS; SWIFTS; ETC.

SUBORDER CAPRIMULGI. GOATSUCKERS; ETC.

FAMILY CAPRIMULGIDÆ. GOATSUCKERS; ETC.

GENUS ANTROSTOMUS GOULD.

156. *Antrostomus carolinensis* (Gmel.). CHUCK-WILL'S-WIDOW.

A summer resident in the lower Wabash valley, perhaps not rare. Breeds. (Ridgway.) Mr. Ridgway writes me concerning its occurrence: "I have both seen the Chuck-will's-Widow and frequently heard its unmistakable note in Knox County, immediately opposite Mt. Carmel," (Ill. Mr. William Brewster was with Mr. Ridgway, April 20, 1878, when they identified a bird of this species, which hovered around their skiff that evening on the Indiana shore.



Whip-poor-will.

157. *Antrostomus vociferus* (Wils.). WHIP-POOR-WILL.

A well known summer resident, arriving in Southern Indiana usually the second week in April. They deposit their two eggs upon a few leaves in some natural depression in the ground soon after they arrive. They do not appear as numerous as they were some years ago, yet in suitable localities several individuals may be found of an evening occupying the same limited thicket on some warm hillside where they voice their characteristic note by the hour.

GENUS CHORDEILES SWAINSON.



Night Hawk

158. *Chordeiles virginianus* (Gmel). NIGHT HAWK; BULL-BAT.

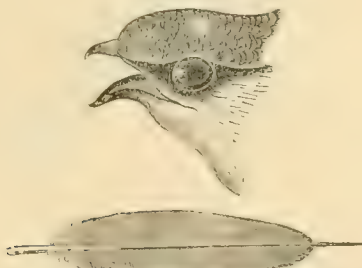
Throughout the northern part of the State a common summer resident, breeding in suitable localities; further south they are not common in summer and but few breed. In some cities they have been found breeding upon the flat roofs of the houses. They arrive during May and June and depart in September. It is a very interesting sight to see, at dusk some pleasant September evening, the great numbers migrating along some water-course, for then they may be seen to best advantage.

SUBORDER CYPSELL. SWIFTS.

FAMILY MICROPODIDÆ. SWIFTS.

SUBFAMILY CHÆTURINÆ SPINE-TAILED SWIFTS.

GENUS CHÆTURA STEPHENS.



Head and tail feather of Chimney Swift; nat. size.

* 159. *Chætura pelagica* (Linn.). CHIMNEY SWIFT.

Common summer resident throughout the State Breeds. In some localities colonies of these birds may still be found occupying hollow trees as nesting sites. I have also known them to build their nests in a shed upon a beam. They are such nuisances in houses with large, old-fashioned chimneys that many persons cover the tops of the chimneys with coarse wire-cloth to exclude the birds.

SUBORDER TROCHILI. HUMMINGBIRDS.

FAMILY TROCHILIDÆ. HUMMINGBIRDS.

GENUS TROCHILUS LINNÆUS.

Subgenus TROCHILUS.

160. *Trochilus colubris* Linn. RUBY-THROATED HUMMINGBIRD.

This beautiful little bird, the only species of its family found within our limits, is a common summer resident throughout the State, where it breeds abundantly. They arrive from the South in early May. Occasionally they appear before our latest "cold snap," and when such is the case great numbers of them perish. I had several brought to me dead one morning after a freeze in early May, and was told of several others which had been seen.

ORDER PASSERES. PERCHING BIRDS.

SUBORDER CLAMATORES. SONGLESS PERCHING BIRDS.

FAMILY TYRANNIDÆ. TYRANT FLY-CATCHERS.

GENUS TYRANNUS CUVIER.



Kingbird.

161. *Tyrannus tyrannus* (Linn.). KINGBIRD.

An abundant summer resident. Breeds. Well known to most persons under the names, "Bee-bird" and "Bee-martin." They are very destructive to bees, and persons engaged in bee culture wage a relentless warfare against these birds. While an occasional one may exhibit in an unusual degree its liking for bees, we may all, I think, agree with Dr. Cones when he says "it destroys a thousand noxious insects for every bee it eats."

GENUS MYIARCHUS CABANIS.

*162. *Myiarchus crinitus* (Linn.). CRESTED FLY-CATCHER.

A common inhabitant of the woodland through the summer where its harsh voice is heard more often than the author is seen. Breeds throughout the State in deserted woodpecker holes and cavities in trees usually, although occasionally, when they come within our towns, as they sometimes do, they select some unique nesting site. For instance, I once knew one to build in a two-quart tin can which was lying on the ground. They are noted for their queer habit of decorating their nests with the cast-off skin of a snake, which, while occasionally absent, is usually present.

GENUS SAYORNIS BONAPARTE.

*163. *Sayornis phoebe* (Lath.). PHOEBE; PEWEE; PEWIT.

A well known and common summer resident, arriving from the South sometimes as early as the latter part of February. Breeds. Builds most commonly beneath bridges and culverts, hence often called "Bridge Pewee."

GENUS CONTOPUS CABANIS.

Subgenus NUTTALLORNIS Ridgway.

164. *Contopus borealis* (Swains.). OLIVE-SIDED FLY-CATCHER.

A rare migrant, may possibly breed in the northern part of the State. Has been reported but once from the southern part of the State, Wheatland, Knox County, May 12, 1885. (Ridgway.) Mr. Ruthven Deane has noted it at English Lake, and Mrs. Jane Hine at Sedan, Dekalb County.

Subgenus CONTOPUS Cabanis.

*165. *Contopus virens* (Linn.). WOOD PEWEE.

A common summer resident. Breeds. As its name indicates it frequents the woods, but it often strays into town and frequents the well-shaded lawns of our more secluded homes. I have known one pair to depart from the usual custom of building their nest on the limb of a tree and build on the top of a veranda column where was a projection sufficiently large beneath the roof.

* GENUS EMPIDONAX CABANIS.

*166. *Empidonax flaviventris* Baird. YELLOW-BELLIED FLY-CATCHER.

A regular migrant, but not in any numbers. Breeds in the northern part of the State occasionally, Dekalb County. (Mrs. Jane L. Hine.) Several shot in Lake County July 23, 1887. (Coale.)

*167. *Empidonax acadicus* (Gmel.). ACADIAN FLY-CATCHER.

A common migrant and frequent summer resident. Breeds throughout the State, but more commonly northward.

*168. *Empidonax pusillus traillii* (Aud.). TRAILL'S FLY-CATCHER.

Migrant and summer resident, not common. Occasionally breeds.

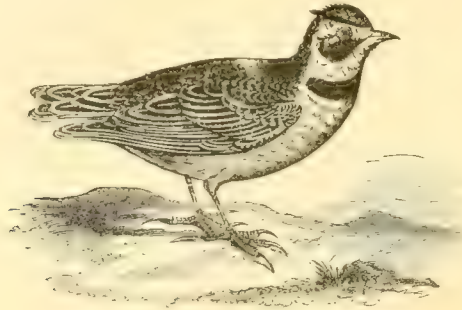
*169. *Empidonax minimus* Baird. LEAST FLY-CATCHER.

Tolerably common migrant; some breed northward.

SUBORDER OSCINES. SONG BIRDS.

FAMILY ALAUDIDÆ. LARKS.

GENUS OTOCORYS BONAPARTE.

170. *Otocorys alpestris* (Linn.). HORNED LARK.

Horned Lark.

Rare winter visitor in the northern part of the State. A specimen collected by Mr. G. Frean Morcom, at Davis Station, Starke County, Mr. Ridgway identified as this species. Mr. H. K. Coale obtained six specimens of this form at Tracy Station, Indiana, February 10, 1887. Perhaps occurs throughout the northern half of the State. Has been found at Mt. Carmel, Ill. (Dwight, "The Auk," April, 1890, p. 142.)

*171. *Otocorys alpestris praticola* Hensh. PRAIRIE HORNED LARK.

Resident, common northward, rarer southward, where it is an abundant winter visitor. Has been noted breeding at Bloomington, Greensburg and Richmond. I am confident they breed near Brookville, although I have not succeeded in finding the nest. Young were found there June 21, 1891.

FAMILY CORVIDÆ. CROWS, JAYS, MAGPIES, ETC.

SUBFAMILY GARRULINÆ. MAGPIES AND JAYS.

GENUS CYANOCITTA STRICKLAND.

172. *Cyanocitta cristata* (Linn.). BLUE JAY.

A common resident throughout the State. Breeds.

SUBFAMILY CORVINÆ. CROWS.

GENUS CORVUS LINNÆUS.

*173. *Corvus corax sinuatus* (Wagl.). AMERICAN RAVEN.

Formerly a common resident, now extinct throughout the southern part of the State, but still occasionally found in the northern part. Breeds. "It frequents the sand hills along the shores of Lake Michigan from October until spring, eating the dead fish thrown up by the lake." (Brayton, Trans. Ind. Hort. Soc., 1879, p. 129.) The past winter (1890-1) they were not uncommon in the eastern part of Allen County. (Stockbridge.)

*174. *Corvus americanus* Aud. AMERICAN CROW.

Resident, common southward but not so numerous in winter northward. Breeds. They sometimes congregate in immense flocks in some locality in the winter. Such places are called "roosts." Mr. Blatchley informs me there is a "roost" near Terre Haute. I have never seen one of these locations. Upon the authority of an observing farmer near Indianapolis I learn of an interesting bit of biographical matter which has heretofore escaped my notice. A year or two ago his tomato patch was infested with great numbers of worms and he was compelled to wage relentless warfare against the unwelcome visitors. One day he observed a crow acting in an unusual manner among his plants. Upon investigation he found it was eating "tomato worms." The next day more crows were seen among the vines, and for a few days the company increased until quite a number daily sought his tomato plants, depending upon the insects caught for their food. This was continued until the "worms" were all killed.

FAMILY ICTERIDÆ. BLACKBIRDS; ORIOLES; ETC.

GENUS DOLICHONYX SWAINSON.



Bobolink.

*175. *Dolichonyx oryzivorus* (Linn.). BOBOLINK; WHITE-WINGED BLACKBIRD.

Known in various localities as "Ortolan," "Reed-bird," "Rice-bird," Skunk Blackbird, Bob Lincoln, Butter-bird (Jamaica). Common summer resident northward. Migrant southward in variable numbers. Has been noted as breeding as far south as Indianapolis (Dr. Brayton), Richmond and Muncie. I found it on June 13, 1891, near the southern limit of Wayne County. The song of the male in spring is the charm of the northern prairies and meadows. Little would the uninitiated suppose the plain, quiet, brown bird of the stubble fields in autumn the same whose happy voice proclaimed the pride he felt in his striking coat of black and white, whose cheery notes and lively ways gave the hitherto unattractive grass-land an interest before unknown.

GENUS MOLOTHRUS SWAINSON.

*176. *Molothrus ater* (Bodd.). COWBIRD.

Common summer resident. Generally gregarious. Lays its eggs in the nests of other birds. Arrives from the South sometimes early in March and remains into November.

GENUS XANTHOCEPHALUS BONAPARTE.

177. *Xanthocephalus xanthocephalus* (Bonap.). YELLOW-HEADED BLACKBIRD.

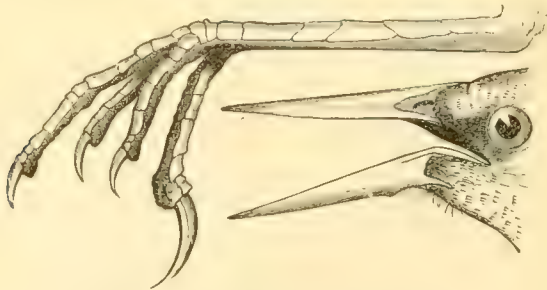
Summer resident among the lakes and swamps of the northwestern part of the State, said to be common occasionally in Lake County. Mr. Charles Dury has also obtained specimens from English Lake. Breeds in Lake County (Toppan); also abundantly about Mud Lake, on the Illinois and Indiana line.

GENUS AGELAIUS VIEILLLOT.

178. *Agelaius phoeniceus* (Linn.). RED-WINGED BLACKBIRD; SWAMP BLACKBIRD; RED-SHOULDERED BLACKBIRD.

Common summer resident. Most numerous in the vicinity of swamps and marshes. Breeds.

GENUS STURNELLA VIEILLLOT.

179. *Sturnella magna* (Linn.). MEADOW LARK.

Bill and foot of Meadow Lark, nat. size,

Abundant summer resident. Breeds. Resident in some numbers in the southern part of the State. I do not know that the Western form (*Sturnella magna neglecta*) has been found within the State, but I identified a specimen in Cook County, Ill., near the Indiana line, in March, 1890. Other specimens have been recorded from the same county (Ridgway, *The Ornithology of Illinois*, vol. 1, p. 318).

GENUS ICTERUS BRISSON.

Subgenus PENDULINUS Vieillot.

180. *Icterus spurius* (Linn.). ORCHARD ORIOLE.

Summer resident, locally common; seems to be becoming more common each year. Breeds. Although they occasionally eat some fruit they are not to be considered non-beneficial, but rather they are great insect destroyers in spring and early summer about the orchard, and later among the cornfields, where the family may be found in company after they have left the nest. My attention has been called to the fact that they are great destroyers of insects which make a cocoon of the leaves of the grape.

Subgenus YPHANTES Vieillot.

181. *Icterus galbula* (Linn.). BALTIMORE ORIOLE; HANG-NEST; FIRE BIRD.

Summer resident; most numerous along water-courses and about lakes; breeds. These birds appear to be becoming less numerous each year.

GENUS *SCOLECOPHAGUS* SWAINSON.182. *Scolecophagus carolinus* (Müll.). RUSTY BLACKBIRD.

Migrant and occasional winter resident southward, more numerous northward. They arrive from the South late in February, and during the fall remain until late November.

GENUS *QUISCALUS* VIEILLLOT.Subgenus *QUISCALUS*.*183. *Quiscalus quiscula æneus* (Ridgw.). BRONZED GRACKLE; COMMON BLACKBIRD; CROW BLACKBIRD.

Common summer resident; breeds abundantly. In the southern part of the State some occasionally remain throughout the winter. They arrive from the South in great flocks early in February, and, after many breeding, leave until September and October, when they are again found with us in flocks as they are on their way South.

FAMILY FRINGILLIDÆ. FINCHES, SPARROWS, ETC.

GENUS *COCCOTHAUSTES* BRISSON.Subgenus *HESPERIPHONA* Bonaparte.184. *Coccothraustes vespertina* (Coop.). EVENING GROSBIRD.

A bird of peculiar distribution, whose home is in the coniferous forests of the northwest. From there they migrate in fall eastward and southward, varying much in extent of the movement and in the number of individuals. Some years they are entirely wanting east of Lake Michigan. They appear to be extending their range year by year, having in the winter of 1889-90 reached the Atlantic coast at several places in New England. The first record of this species in Indiana of which I can learn, is November, 1878, when a specimen, now in the collection of Purdue University, was taken near Lafayette (C. R. Barnes). December 20 1883, "five specimens shot at Whiting Station, Ind." (Coale.) Mrs. A. W. Brayton has a specimen which was taken in the summer of 1886, near Allisonville, twelve miles north of Indianapolis. The winter of 1886-87 they were quite abundant in Cook County, Ills., and the neighboring counties of Indiana. January 20, 1887, the late C. H. Bollman took one of these birds at Bloomington; on the same day five were taken by Mr. Cal. Meredith, near Frankfort. March 25 Mr. Oscar Vaught shot two near Mace. Mr. G. G. Williamson noted some at Bloomington, April 27, 29 and 30. Mr. C. A. Stockbridge obtained one near Ft. Wayne, May 6. They remained in Lake County until May 13, which is the last date I have. Mr. F. C. Test, late of Purdue University, Lafayette, now with the U. S. National Museum, Washington, D. C., informs me of the capture of a specimen from a flock of twenty or thirty, February 1, 1890, by Mr. H. N. McCoy, near Lafayette. Dr. A. W. Brayton informs me that a specimen was taken near Indianapolis that winter. Mr. C. A. Stockbridge identified them near Ft. Wayne, February 15, 1890.

GENUS *PINICOLA* VIEILLLOT.185. *Pinicola enucleator* (Linn.). PINE GROSBIRD.

Rare winter visitor to Northern Indiana. Has been identified at Michigan City by Mr. J. W. Byrkit. Mr. Geo. L. Toppan notes its occurrence in Lake County, and thinks it was in the winter of 1884-5. From the fact that it has been taken in Kentucky (The Auk, July, 1888, p. 321), it may occur throughout the State at irregular intervals.

GENUS CARPODACUS KAUP.

186. *Carpodacus purpureus* (Gmel.). PURPLE FINCH.

Regular migrant; sometimes winter resident in the southern part of the State. In the winter of 1887-8 they remained all winter as far north as Dekalb County



Bill of Purple Finch.

(Mrs. Hine). They doubtless occasionally remain through the summer in the northern part of the State. They are most common in Southern Indiana in spring, when they may be found in flocks feeding upon the elm buds.

GENUS LOXIA LINNÆUS.

187. *Loxia curvirostra minor* (Bachm). AMERICAN CROSSBILL.

Irregular winter visitor throughout the State, most numerous northward, where they are, some winters, very common. In the southern part of the State they are comparatively rare, and are most often seen in spring and autumn. They are usually more often noted throughout the State during the migrations. In the northern part of the State they sometimes remain until late April and early May. Delaware County, April 17, 1888 (Williamson); Dekalb County, April 27, '89 (Snyder), April 29, '90 (H. W. McBride); Lake County, May, 1887 (Parker). A most unusual occurrence was the identification of several birds of this species near Bloomington, Indiana, by the late Mr. C. H. Bollman, July 10, 13 and 14, 1886 (Evermann; Hoosier Nat., May, 1887, p. 141.)

188. *Loxia leucoptera* Gmel. WHITE-WINGED CROSSBILL.

Winter visitor, of rare and irregular occurrence generally. The first record known to me is a pair obtained at Ft. Wayne, about 1878. The female is now in the collection of Mr. C. A. Stockbridge. Prof. B. W. Evermann obtained several



White-winged Crossbill.

in Monroe County, in February, 1883. Mr. J. W. Byrkit informs me that they were found in numbers in company with *Loxia americana* in the winter and spring of 1883-4, near Michigan City, Indiana.

GENUS ACANTHIS BECHSTEIN.

189. *Acanthis linaria* (Linn.). REDPOLL.

Common winter visitor in the northern part of the State, of rare occurrence in the southern part. In Franklin and Monroe counties they have been identified once in each, and in Vigo County are rarely seen.

190. *Acanthis linaria rostrata* (Coors). GREATER REDPOLL.

Rare winter visitor. Mr. H. K. Coale informs me that he obtained a specimen of this species (No. 5340, Mus. H. K. Coale) January 1, 1884, at Davis Station, Starke County, Indiana. It was found in a flock of common Redpolls (*A. linaria*) feeding on the seeds of weeds, the tops of which protruded from the snow. Mr. Coale had taken a specimen, November 21, 1878, in Cook County, Ill., near the Indiana line, which was the first Illinois record. These birds were reported as *Acanthis linaria holballii*, but are evidently this form; in fact the Illinois specimens have been so referred by Mr. Ridgway.

GENUS SPINUS KOCH.

191. *Spinis tristis* (Linn.). AMERICAN GOLDFINCH; SEED-BIRD; LETTUCE BIRD; THISTLE BIRD; YELLOW BIRD.

Abundant resident. In its bright yellow-and-black spring dress it is known to all. Those which pass the winter in Southern Indiana leave for the north in April and are replaced by others in full dress from further south. The fondness of these birds for the seed of the sunflower, thistle and lettuce has been noted by all. With us they frequent the towns in considerable numbers. They are very tame, and, like the Yellow Warbler, Warbling Vireo, and Cedar Waxwing, often build their nests among the shade trees along the streets.

192. *Spinus pinus* (Wils.). PINE SISKIN; PINE FINCH.

Tolerably regular migrant and irregular winter resident. The winter of 1882-3 they frequented the Whitewater river "bottoms" in Franklin County in countless numbers. The succeeding winter they were very abundant in Laporte County. In spring, February and March, they frequent the evergreen trees about the towns, where they are often found in company with the last preceding species, and the American Crossbill, and in April are found about the elms in the woods; when they stay later they are found feeding upon the buds of the sugar maple. While they usually leave Southern Indiana late in April, I have found them near the middle of May in Franklin County—May 9 and 11, 1885. "Dr. Jordan took a specimen in midsummer near Indianapolis." (Brayton.)

GENUS PLECTROPHENAX STEJNEGER.

193. *Plectrophenax nivalis* (Linn.). SNOWFLAKE; SNOW BUNTING; WHITE SNOWBIRD.

Winter visitor, sometimes winter resident; not often found in southern part of the State; occasionally common northward. It has only been identified in Franklin County twice. Mr. E. L. Guthrie observed it in Decatur County. "They were quite common about Indianapolis during the extreme cold and snow of January 1879." (Brayton.)

GENUS CALCARIUS BECHSTEIN.

194. *Calcarius lapponicus* (Linn.). LAPLAND LONGSPUR.

Winter visitor or winter resident; rare southward, more common northward. It is said to be a common spring migrant in Lake County (Toppan). It has not been generally observed over the State. Two were taken by Prof. Evermann at

Bloomington, February 2, 1883; Mr. Balmer reports it as a winter resident in Knox County; Judge McBride gives it as a rare winter visitor in Dekalb County; Mr. Byrkit makes the same note with reference to Laporte County. Mr. Stockbridge notes it as a regular winter visitor, but rare in Allen County. He has a pair in his collection taken in 1880 near Fort Wayne. Dr. J. T. Scovell has three specimens which he took near Terre Haute in the winter of 1881-2. They were in company with a flock of Horned Larks.

195. *Calcarius pictus* (Swains.). SMITH'S LONGSPUR; PAINTED LONGSPUR.

Migrant, common in the vicinity of Lake Michigan, at times at least. "Nelson observed this species as a common migrant on the borders of Lake County, Indiana, where even seventy-five were seen in a flock." (Brayton. Trans. Ind. Hort. Soc., 1879, p. 121.)

GENUS POOCLETES BAIRD.

196. *Poocætes gramineus* (Gmel.). VESPER SPARROW; BAY-WINGED BUNTING; GRASS FINCH.

Common summer resident. Breeds. Possibly resident in the extreme southern part of the State. In Franklin County they are present some years from the middle of February to early November. They first arrive in small flocks, but pair about April 10. They are beautiful songsters, their sweetest songs swell forth at twilight, associated with the notes of insect life, the glow of the firefly, the call of the Whip-poor-will. It is the vesper hymn, hence its author is known as the Vesper Sparrow. Many pretty things have been said of this plain, sweet-voiced finch. It has been called "The poet of the plain, unadorned pastures." John Burrows has used his gifted pen to good advantage in describing that which charms one in this well known bird.

GENUS PASSER BRISSON.

197. *Passer domestica* (Linn.). EUROPEAN HOUSE SPARROW; "ENGLISH SPARROW."



English Sparrow, male.

This imported species is found resident throughout the State. They were introduced at many places in the United States, first, so far as we know, at Brooklyn, N. Y., in 1850. They were introduced into Cincinnati in 1873, and first appeared in Franklin County in 1878. Except through the harvest season they are perhaps most common about the towns and cities. When harvest begins they, having for the greater part, laid aside domestic cares, flock to the country, where the ripening heads of small grain of all kinds are attacked. They continue to destroy it until it is past all stages of manipulation and safe in the farmer's barn. I have seen the cap sheaves of wheat, oats and barley with almost every grain shelled out at the end of a week after it was put in shock. About town they are very destructive to fruits and garden seeds. Of the growing garden crops, peas suffer most. As soon as the tender sprouts are out of the ground it is not uncommon for a flock of these sparrows to begin at some point in the row and bite off the leaves from every vine, completely destroying the crop. The U. S. Department of Agriculture has recently published a very valuable report of the investigations concerning this sparrow.

GENUS AMMODRAMUS SWAINSON.

Subgenus PASSERCULUS Bonaparte.

198. *Ammodramus sandwichensis savanna* (Wils.). SAVANNA SPARROW.

Common migrant, usually found in flocks. In the Whitewater Valley they are present throughout April, September and October. They may winter in the southwestern part of the State, and it is probable that they are, in some localities at least, summer residents.

Subgenus COTURNICULUS Bonaparte.

199. *Ammodramus savannarum passerinus* Wils. GRASSHOPPER SPARROW; YELLOW-WINGED SPARROW; "CRICKET SPARROW."

Common summer resident, frequenting meadows, pastures and fields of small grain. Breeds. Its peculiar stridulating note has given it some of its names. Arrives in southern Indiana about the middle of April (13-20). I have never seen the young before the early part of July. Most of the birds disappear early in August, although I have sometimes found a few the latter part of that month.

200 *Ammodramus henslowii* (Aud.). HENSLOW'S SPARROW.

Summer resident northward, perhaps only migrant southward; breeds. It is exceedingly local in its distribution. It has been observed in a locality, of very circumscribed limits near Tolleston, Lake County. There Mr. H. K. Coale found it for the first time May 10, 1877, when he obtained a male. His notes concerning this one: "Hearing a rustle in the grass, I looked down and saw a bird which ran like a mouse. It stuck its head under some leaves and grass, leaving its tail exposed. I had to back some distance to shoot it." July 4, 1881, Mr. Coale again visited the same locality, found quite a number of these birds and obtained five specimens. The males were in full song, and he is confident they were breeding. Mr. Ruthven Deane informs me that he recently saw a specimen killed, about 1888, at Water Valley, Ind., by Mr. Chas. E. Aiken.

201. *Ammodramus leconteii* (Aud.). LECONTE'S SPARROW.

Only known as a very rare migrant. The only record I know of its occurrence in the State is from the capture of a single specimen by myself, four miles northwest of Brookville, March 12, 1884. The bird was sitting motionless on a bush near the railroad track, and allowed me to approach near enough to determine

that I did not know it. Cautiously stepping backward until I could shoot it without destroying it, I was enabled to secure it. It is probable that investigation will prove that it is more common and perhaps breeds in the northern counties.

Subgenus *AMMODRAMUS* Swainson.

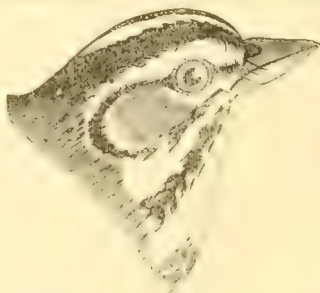
202. *Ammodramus caudacutus nelsoni* Allen. NELSON'S SPARROW.

Doubtless a summer resident in the northwestern counties of the State, from which portion only I have heard of it. It frequents the marshes and is hard to observe. September 25, 1875, Mr. H. K. Coale notes, "we saw about a dozen Sharp-tail Finches (*A. nelsoni*); they were in the grass along Berry Lake" (Lake County). Dr. A. W. Brayton informs me that he has taken the species in Lake County. Information concerning this species from Indiana is very desirable.

GENUS *CHONDESTES* Swainson.

203. *Chondestes grammacus* (Say). LARK SPARROW.

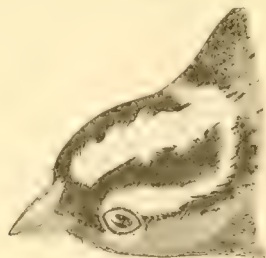
Rather common summer resident. Breeds. This bird is a comparatively recent introduction to our fauna, having been first recognized in Franklin County, about 1877. Not many years ago it was unknown this far east, at least this was



Head of Lark Sparrow, nat. size.

the case in southeastern Indiana. A few years since it was rare, but each year it is becoming more numerous. They delight to spend much of their time along some dusty road, flying up ahead of the passing traveler and exhibiting their decided markings and rounded tail, each feather so beautifully tipped with white, so that the observing person may readily recognize the species. They arrive in flocks late in April and early in May, and, after rearing their young, collect in flocks in August and begin their southern pilgrimage.

GENUS *ZONOTRICHIA* Swainson.



Head of White-crowned Sparrow, nat. size.

204. *Zonotrichia leucophrys* (Forst.). WHITE-CROWNED SPARROW; "PEABODY BIRD."

Common migrant. Very noticeable late in April and early in May. I always associate this beautiful bird with the fragrance of apple blossoms, for

they come together and seem to be fitly connected in my mind. The White-crowned Sparrow frequents the orchard, garden and more open thickets, and in the spring-time betrays its presence by its characteristic song.



Head of White-throated Sparrow, nat. size.

205. *Zonotrichia albicollis* (Gmel.). WHITE-THROATED SPARROW.

Abundant migrant, perhaps rare summer resident in the northern part of the State. Mr. E. A. Colby shot one at Berry Lake (Lake County) July 23, 1887, (Coale). The greater number are observed in the migrations from March 15 to May 15, and from September 25 to November 1. They are usually found in flocks of considerable size, in which they differ from the last mentioned species.

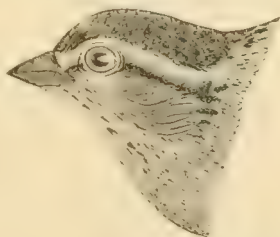
GENUS *SPIZELLA* BONAPARTE.

206. *Spizella monticola* (Gmel.). TREE SPARROW.

Abundant winter resident, found in flocks often in company with Juncos. They are usually present in southern Indiana from early November until early April. Mr. Blatchley has reported them from Bloomington as late as April 19, which is unusually late.

207. *Spizella socialis* (Wils.). CHIPPING SPARROW.

Familiarly known as "Chip bird" or "Chippy." Abundant summer resident; breeds; arrive March 10 to 20 and depart October 15 to 25. No bird is held in higher esteem. Even the boys, who will wantonly kill almost any other bird, would not kill a "Chippy."



Head of Chipping Sparrow, nat. size.

208. *Spizella pallida* (Swains.). CLAY-COLORED SPARROW.

Rare or accidental. Possibly migrant or summer resident. They are summer residents in western and northern Illinois. (Ridgway, Bull. No. 4, Ill. State Laboratory of Nat. Hist. But one instance has been reported of its occurrence in the State. Mr. W. S. Blatchley shot a specimen from a flock of sparrows near Terre Haute, September 27, 1890.

*209. *Spizella pusilla* (Wils.). FIELD SPARROW.

Abundant summer resident; breeds. An inhabitant of old fields and pastures, to which it adds the charm of a delightful song, one which, to a lover of bird music, is associated with the blooming of the Violet, Innocence and "Blue-bells."

GENUS JUNCO WAGLER.

210. *Junco hyemalis* (Linn.). SLATE-COLORED JUNCO.

Abundant winter resident. Well known as "Snow-bird" or "Black Snow-bird." Arrive in Southern Indiana from October 5 to 20, and leave about April 10, but some few remain until April 25.

211. *Junco hyemalis shufeldti* Coe. SHUFELDT'S JUNCO.

Rare winter visitor. A specimen of this bird was killed by Mr. Ralph S. Wickersham in the yard of Mr. Thomas Cory, in West Lafayette, January 20, 1891. It was shot for food for a captive Barn Owl, *Strix pratensis* Bonap., but observing it was something different from the common Junco, it was forwarded to the Smithsonian Institution at Washington, where it was identified as this form. For this information as well as for the privilege of examining the specimen, I am indebted to Mr. Erastus Test, of Lafayette.

GENUS PEUCEA AUDUBON.

212. *Peucea restialis bachmanii* (Aud.). BACHMAN'S SPARROW; "OAK-WOODS SPARROW."

Summer resident in the south-western quarter of the State; generally not common, but Mr. Ridgway says in all parts of Knox County he has visited it is somewhat common. Breeds. First identified by Mr. Robert Ridgway, from Knox County, but has later been taken in Monroe County, where it appears to be regularly found and where it has several times been found breeding; also found in Putnam County April 18 and 19, 1891, by Mr. Alexander Black.

GENUS MELOSPIZA BAIRD.

213. *Melospiza fasciata* (Gmel.). SONG SPARROW.

Common resident; perhaps not so numerous northward in winter; most common southward during the migrations. Breeds. A pleasing songster, well known to most every one. Usually nests on the ground or low bush, but occasionally its nests have been found as high as ten feet above the ground.

214. *Melospiza lincolni* (Aud.). LINCOLN'S SPARROW.

Regular, but rare, migrant. In spring they are usually found among bushes and grass near streams, ponds, lakes or marshes. I do not know that it breeds within the State.

*215. *Melospiza georgiana* (Lath.). SWAMP SPARROW.

Common summer resident northward. Breeds. Southward it is only known as a regular migrant, excepting, perhaps, in the extreme southern part of the State, where it may be winter resident.

GENUS PASSERELLA SWAINSON.



Bill of Fox Sparrow, nat. size.

216. *Passerella iliaca* (Merr.). FOX SPARROW; RED SPARROW.

Common migrant. A large and beautiful fox-colored sparrow, which arrives sometimes about the middle of February, and leaves by middle of April. Returning, they are present throughout October. They frequent thickets, brier patches and brush piles, and are of a retiring habit.

GENUS PIPILO VIEILLOT.

217. *Pipilo erythrophthalmus* (Linn.). TOWHEE; "CHEWINK;" "JEWEE;" GROUND ROBIN; MARSH ROBIN.

Common resident southward, summer resident northward. Breeds. Distributed everywhere among bushes and thickets; sometimes even found within the larger towns. Nest usually upon the ground, but occasionally in a bush. The males have a very pretty song. The first three names are derived from the ordinary call of the bird, which somewhat resembles the words used. They are noticeably more common during the migrations. Usually nests on the ground, but occasionally the nests are found several feet high in bushes.

GENUS CARDINALIS BONAPARTE.

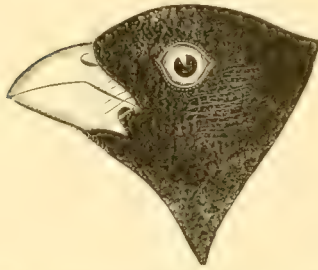


Head of Cardinal, nat. size.

218. *Cardinalis cardinalis* (Linn.). CARDINAL; CARDINAL GROSBEEK; "RED-BIRD."

Very common resident in the southern half of the State, north of that they are perhaps resident, but vary much in numbers, according to localities. Breeds. They are rare in DeKalb County (Hon. R. Wes McBride, Mrs. J. L. Hine); Porter County (Trouslet, Byrkit); Allen County (Stockbridge). In the extreme northwest counties of the State they are very rare, and may be said to be of accidental occurrence. They nest quite early in April. They are easily tamed and are largely captured in many localities for cage birds. The song is a very characteristic one, only resembled so far as I know by some of the notes of the Carolina Wren. The Cardinal is one of the most noticeable features of our avian fauna.

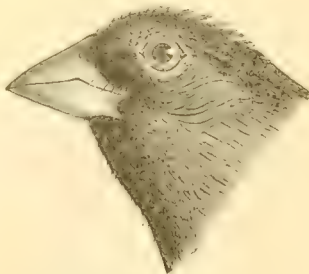
GENUS HABIA REICHENBACH.



Head of Rose-breasted Grosbeak, nat. size.

219. *Habia ludoviciana* (Linn.). ROSE-BREADED GROSBEEK.

Common summer resident throughout the greater part of the northern half of the State, and rarely as far south as Bloomington, Indiana. Audubon found them nesting near Cincinnati, Ohio. Over the southern part of the State the species is known as a migrant of irregular occurrence. Some years they are very abundant and others they are rare or wanting. They appear in Southern Indiana about April 25 and leave by May 10; in autumn they arrive about September 20 and leave October 10. They have somewhat the appearance of a Red-headed Woodpecker when seen flying through the woods at some distance. Their song is a very beautiful one; one which readily attracts attention and will never be forgotten.



Head of Blue Grosbeak, nat. size.

GENUS GUIRACA SWAINSON.

220. *Guiraca caerulea* (Linn.). BLUE GROSBEEK.

A rare or accidental visitor to the southwestern part of the State. The only record of its occurrence is that given by Mr. Ridgway. He observed a specimen in Knox County in the spring of 1881.

GENUS PASSERINA VIEILLOT.

221. *Passerina cyanea* (Linn.). INDIGO BUNTING.

Abundant summer resident; breeds. A well-known species found among bushes and thickets, usually nesting on a low bush. Arrives about April 25 (22-26) and leaves last of September (13-24). They mate about the middle of May.

GENUS SPIZA BONAPARTE.

222. *Spiza americana* (Gmel.). DICKCISEL; BLACK-THROATED BUNTING; LITTLE MEADOW LARK.

Abundant summer resident; breeds. It inhabits the meadows, where its sharp, metallic notes are heard, reminding me of the sound made by dropping five silver dollars from one hand to the other somewhat rapidly. This bird seems to be of recent occurrence, in southeastern Indiana at least. It was not recognized in Franklin County until within the last twenty years. Dr. Haymond had not seen it in 1869. Now it is one of the most characteristic birds of the upland fields, but is rarely found in the river vallies.

FAMILY TANAGRIDÆ. TANAGERS.

GENUS PIRANGA VIEILLLOT.

223. *Piranga erythromelas* Will. SCARLET TANAGER; "BLACK-WINGED REDBIRD."

Common summer resident throughout the State. Breeds. A bird well known to those who are familiar with the more open woodland. The brilliant livery of the male makes it an attractive form among the cool woodland pastures.

*224. *Piranga rubra* (Linn.). SUMMER REDBIRD.

Common summer resident over most of southern Indiana, rare east of White-water River. They have been noted as far north as "Shades of Death" (Parke County), Terre Haute and Greencastle. Breeds. This bird is not so brilliant as the last mentioned species and the male lacks the black wings. Over the more hilly region of southwestern Indiana they far outnumber the Scarlet Tanagers. They appear in southern Indiana in spring, April 18 to 23, and it has been noted by Mr. Ridgway at Wheatland, in the autumn as late as October 10 (Orn. of Ill., Vol. I, p. 218.)

FAMILY HIRUNDINIDÆ. SWALLOWS.

GENUS PROGNE BOIE.

*224. *Progne subis* (Linn.). PURPLE MARTIN.

Common summer resident in localities where they can find nesting sites. In many localities they are unknown or rare. In southeastern Indiana but a small number is now to be found, compared with those which formerly visited us. They have disappeared before the pugnacious English Sparrow, which occupied their nesting boxes, and notwithstanding heroic and long continued efforts upon the part of the Martins to expel the invaders, they were unsuccessful and retreated, leaving the Sparrows to "hold the fort." The Martins returned for a few years and each year attempted to regain their former homes, but met with repeated repulses and at last ceased to fight for their homes. These birds are much prized by our people.

GENUS PETROCHELIDON CABANIS.

225. *Petrochelidon lunifrons* (Say.). CLIFF SWALLOW; EAVE SWALLOW; "MUD DAUBER;" SQUARE-TAILED BARN SWALLOW.

Abundant summer resident in certain localities. Breed. They generally frequent a locality in colonies, and do not usually return to the same breeding place each year. Sometimes, however, a single pair or a few pair will be found at a considerable distance from any large colony. It was formerly supposed that the species had quite recently extended its range to the Eastern U. S., but it is now

known that it was identified in New York, New Hampshire, New Brunswick and Vermont about the time the species was described by Say. Audubon noted their occurrence near Newport, Ky., in 1819, but not much is known of their occurrence in this State within the first half of this century. Dr. Haymond says: "These swallows first built their nests in this county (Franklin) in 1849. Previous to that time they were occasionally seen as migrants." (Proc. Phila. Acad. Nat. Science, 1856, p. 287.) In the southern portion of the State they prefer the uplands for building sites; there they congregate sometimes in large colonies and construct their "bottle-necked" nests beneath the eaves and upon the outside of the farmer's barns and outbuildings. I have never known them to frequent the towns. Along the rivers they seldom breed, apparently because of the amount of sand in the clay, for which reason they are unable to construct their nests. On one occasion quite a colony of these birds sought the barn of a farmer near the river and began to erect their nests. When they had almost completed them they crumbled and fell. Several times they tried to construct their mud homes, but as often they fell when they began to dry. At last the swallows gave up in despair and left in a body.

GENUS CHELIDON FORSTER.

226. *Chelidon erythrogaster* (Bodd.). BARN SWALLOW.



Details of Structure of Barn Swallow, nat. size.

An abundant summer resident, frequenting alike town and country. Breeds. Known by its deeply bifurcate tail; nests in barns and other buildings. A most graceful bird, and one that is much prized by man. Usually arrives in Franklin County, April 10-15, and departs about August 20. I have known them to arrive as early as March 30. and to remain until September 2. Sometimes, when the temperature falls below freezing in April and early May, many of them perish from cold. May 20 and 21, 1883, quite a number, together with other birds, were found frozen.

GENUS TACHYCINETA CABANIS.

227. *Tachycineta bicolor* (Vieill.). TREE SWALLOW; WHITE-BELLIED SWALLOW.

Migrant southward; summer resident northward, varying in numbers according to locality. Some places they are rare, others they are abundant. Breeds in holes in trees. I do not know that the species now breeds in the southern part of the State, but that it formerly did so I am certain. Mr. Ridgway informs me that when he formerly lived at Mt. Carmel, Illinois, this species "was one of the most abundant summer residents, breeding in *very large colonies* in sloughs connected with the river, their nests being invariably built in abandoned woodpecker's holes in dead stumps and trees. I am not sure that it breeds there now (1886), as many changes have been made in the localities formerly frequented by it, but presume that it does." Mr. E. R. Quick also informs me that several years ago, before he was acquainted with this bird, he saw some swallows occupying holes in trees in summer, and that he is satisfied they were this species.

GENUS CLIVICOLA FORSTER.

228. *Clivicola riparia* (Linn.). BANK SWALLOW; SAND SWALLOW; SAND MARTIN.

Abundant summer resident, breeding in colonies in holes in the banks of streams and ponds. In the flatter parts of North Indiana, where the railroads have built their road beds of sand, they excavate holes in these artificial banks. In some of the counties, where desirable nesting sites are few or wanting, these swallows are rare.

GENUS STELGIDOPTERYX BAIRD.

229. *Stelgidopteryx serripennis* (Aud.). ROUGH-WINGED SWALLOW; BANK SWALLOW; SAND MARTIN.

Summer resident throughout the State; common southward, rare northward and in some localities wanting. This bird is not generally distinguished from the preceding. It generally breeds in holes in banks, as does the bank swallow, but usually the holes are found apart from those of the latter species and not close together. They also often breed in old mortise holes in posts; in holes in buildings (Bull. Nutt. Orn. Club., 1876, p. 96, also American Naturalist, Vol. X, p. 373; *ibid* Vol. X, p. 493); and I have found them breeding in an old building in town after the manner of barn swallows, save the nest was placed on a beam.

FAMILY AMPELIDÆ. WAXWINGS, ETC.

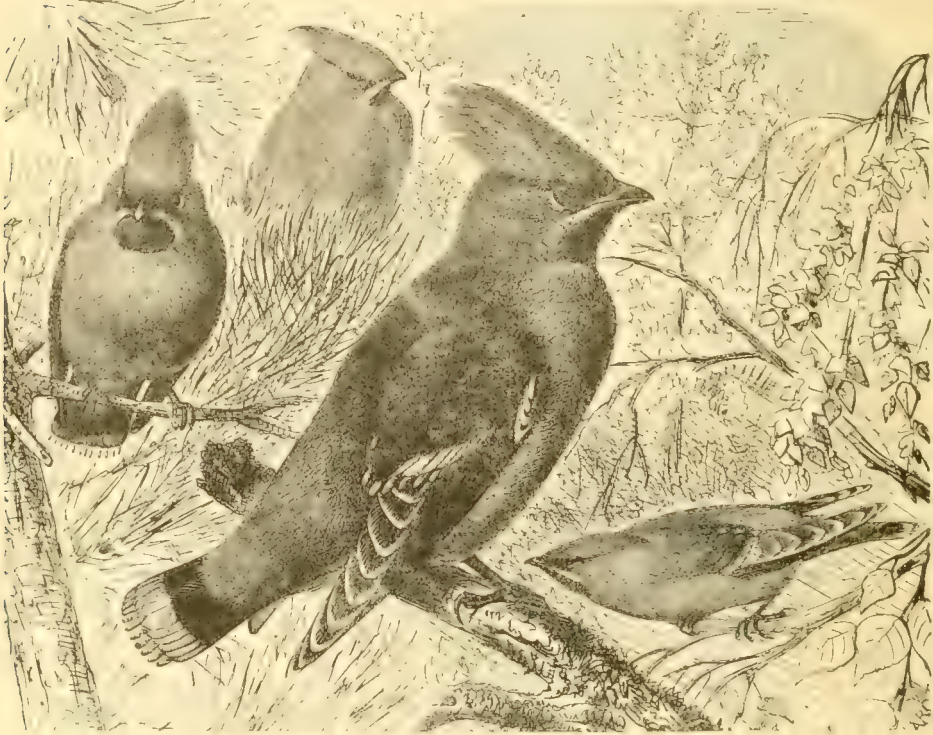
SUBFAMILY AMPELINÆ. WAXWINGS.

GENUS AMPELIS LINNÆUS.

230. *Ampelis garrulus* Linn. BOHEMIAN WAXWING.

Irregular winter visitor to the northern part of the State. Perhaps the only record of its occurrence is in the winter of 1879-80, when they appear to have been very common. March 30, 1880, over one hundred of these birds were killed at Whiting, Lake County, and taken to a Chicago taxidermist. They were seen by Mr. H. K. Coale, to whom I am indebted for the information. Specimens are in the collections of Mr. H. K. Coale and Mr. George L. Toppan, of Chicago, and

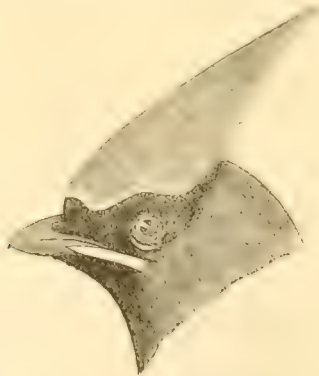
of the writer. Mr. C. A. Stockbridge, writing in 1889, informs me that "about ten years ago" (most probably in the winter of 1879-80) three specimens were



Bohemian Waxwing.

shot a short distance from Lafayette, two of which are in the collection of Prof. H. Duenling, of Fort Wayne, and the other in my own.

"231. *Ampelis cedrorum* (Vieill.). CEDAR WAXWING; CEDAR BIRD; CHERRY BIRD.



Head of Cedar Bird, nat. size.

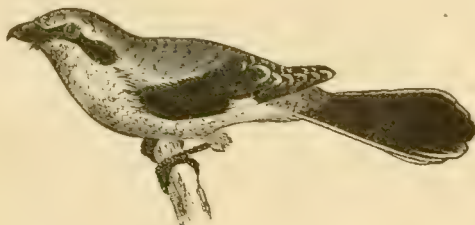
Resident throughout the State; more common northward in summer and southward in winter; breeds. These birds are usually found in flocks. They are

great rovers, rambling over the country at will. They breed in considerable numbers, at times among the shade trees of our towns. In winter their favorite food appears to be the Hackberry (*Celtis occidentalis* L.). In cherry time they are the most persistent robbers of all the cherry-loving birds. They have no fear of man, dog or gun, and after being frightened away, promptly return to the feast they reluctantly left.

FAMILY LANIIDÆ. SHRIKES.

GENUS LANIUS LINNÆUS.

232. *Lanius borealis* (Vieill.). NORTHERN SHRIKE; BUTCHER BIRD.



Butcher Bird.

Winter resident; usually tolerably common northward, more rare southward, but occasionally found in some numbers. This species has been reported as breeding in the northern part of the State, but its breeding range is far to the northward. Owing to this fact it is probable that another Shrike was mistaken for it.

*233. *Lanius ludovicianus* Linn. LOGGERHEAD SHRIKE.

Rare summer resident in southern half of the State. Breeds. Arrives from the South March 15 to 25, and returns about November 1 to 15. The birds found throughout the southern part of the State, so far as I have observed, seem to be this form. In the southeastern part of the State the specimens taken are typical.

*234. *Lanius ludovicianus excubitoroides* (Swains.). WHITE-RUMPED SHRIKE.

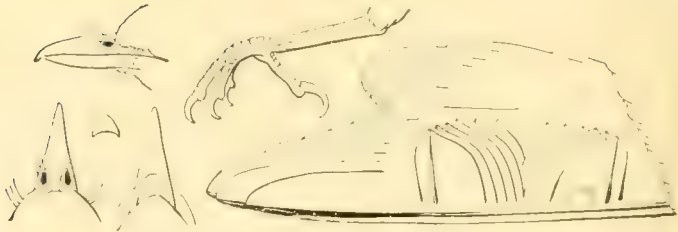
Summer resident in the northern half of the State, found locally in some numbers. Breeds. The Shrikes found in summer in northern Indiana appear to approach this form, so I have for the present included it. Mr. Ridgway, writing of the birds of Illinois, seems disposed not to admit it to the fauna of that State (Orn. of Ill., Vol. I, pp. 194-7).

While these birds destroy some small birds, on the whole they are beneficial, because of the number of small mammals and insects, particularly grasshoppers, which they capture.

FAMILY VIREONIDÆ. VIREOS.

GENUS VIREO Vieillot.

Subgenus VIREOSYLVA Bonaparte.



Details of structure of Red-eyed Vireo, nat. size.

235. *Vireo olivaceus* (Linn.). RED-EYED VIREO.

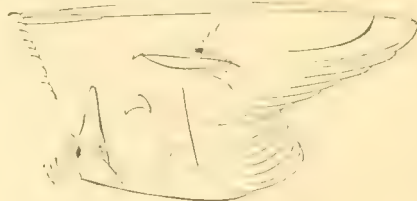
Abundant summer resident, breeds. Perhaps the most common bird of the woodlands, where its loud voice is one of the most characteristic sounds. Arrive April 18-25 and return September 15-21. They mate the first week in May in Southern Indiana, and soon begin the construction of a beautiful nest, which is hung from the fork of one of the lower limbs of some forest tree.



Details of structure of Philadelphia Vireo, nat. size.

236. *Vireo philadelphicus* (Cass.). PHILADELPHIA VIREO.

Migrant and perhaps summer resident in the northern part of the State. Usually rare, but occasionally they are found in some numbers, especially in the northern part of the State. I have taken them at Brookville as late as May 23. The species somewhat resembles the next and is likely to be overlooked. In the Whitewater valley it seems to be a regular migrant, passing south late in September (21-25).



Details of structure of Warbling Vireo, nat. size.

237. *Vireo gilvus* (Vieill.). WARRLING VIREO.

Common summer resident breeds. Arrives April 19-25, remains until September 21. In the southern part of the State it frequents the trees along water courses, the orchards and lawns, and the well shaded streets of the towns. It is a beautiful songster, singing its sweet notes as it moves from limb to limb, searching for its insect food. This is a very beneficial bird to the horticulturist.



Details of structure of Yellow-throated Vireo, nat. size.

Subgenus LANIVIREO Baird.

*238. *Vireo flavifrons* (Vieill.). YELLOW-THROATED VIREO.

Rather common summer resident northward, breeds. In the southern part of the State it is usually only seen as a migrant, but Mr. Ridgway reports it as breeding in Knox and Gibson counties. They arrive in Southern Indiana about April 20 (1925) and pass northward early in May. When they leave us they are usually paired. In autumn they return late in August or early September, and sometimes are present until October 13.



Details of structure of Solitary Vireo, nat. size.

*239. *Vireo solitarius* (Wils.). BLUE-HEADED VIREO.

Regular migrant, some years not uncommon, others quite rare. It breeds occasionally in the northern part of the State. Mrs. Jane L. Hine has noted it nesting in Dekalb County. It usually arrives from the south later than the other species, having been noted in Franklin County April 25 to May 7. In autumn they are present late in September and early in October (5-10).



Details of structure of White-eyed Vireo, nat. size.

Subgenus VIREO Vieillot.

*240. *Vireo noveboracensis* (Gmel.). WHITE-EYED VIREO.

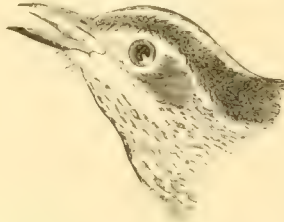
Summer resident; in some localities in Southern Indiana, common; in others rare; in the northern part of the State it is not very common and in the north-western corner appears to be rarely if ever found. It frequents thickets, blackberry

patches and bushy lowlands, and may be readily known by its loud peculiar note. Arrives April 23 30 and remains until about the middle of September (Sept. 13). Its note has been translated by the boys of Illinois, says Mr. Ridgway, as "*chickty-beaver, limber, stick*, with special emphasis on the first syllable of each word." In Bermuda the natives express its notes as saying "*ginger beer, quick!*"

FAMILY MNIOTILTIDÆ. WOOD-WARBLERS.

GENUS MNIOTILTA VIEILLLOT.

241. *Mniotilta varia* (Linn.). BLACK AND WHITE WARBLER; BLACK AND WHITE CREEPER.



Head of Black and White Creeper, nat. size.

Common summer resident. Breeds. Most numerous in spring. The earliest of the Warblers to arrive. Has been taken at Brookville April 3d, but usually appears April 7th to 15th. In many of their habits they much resemble the Creepers, being often found climbing about the trunk and over the larger limbs of trees rather than moving along the smaller branches.

GENUS PROTONOTARIA BAIRD.

242. *Protonotaria citrea* (Bodd.). PROTHONOTARY WARBLER; GOLDEN SWAMP WARBLER.

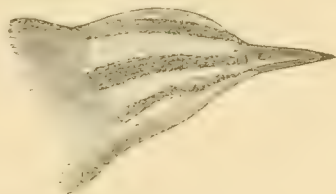
Summer resident locally and in some localities common. It is found as a summer resident throughout the valley of the Wabash river proper, extending to St. Mary's Reservoir in Ohio, and across the Kankakee valley to Lake Michigan, where it is rare. In the lower Wabash valley, about the swamps and cypress ponds, north into Starke County, and in some parts of the Kankakee valley, notably English Lake, it is common and breeds abundantly. Mr. H. K. Coale has taken it on the shore of Lake Michigan in Lake County. Mr. J. W. Byrkit reports having taken one specimen near Michigan City. Mrs. Jane L. Hine has seen it in Dekalb County, and Hon. R. Wes. McBride has taken it in Elkhart County. Prof. Evermann has taken it in Carroll County. ("The Auk," Vol. VI, pp. 26, 27.) In the remainder of the State, east and south of the valley of the Wabash River and in the extreme northeast portion of the State I can learn of no record of its occurrence. Mr. H. W. McBride made a canoe trip the first half of May, (1891), through parts of Steuben, Lagrange and Elkhart counties, Indiana, and St. Joseph County, Michigan. He informs me that he found one specimen of the Prothonotary Warbler in Steuben County, but in Lagrange County, between Lima and Van Buren, they were breeding very commonly. "In a distance of about one-half mile, by the creek, I found eight nests without leaving my boat. The nests were all in old Woodpeckers' holes in stubs over the water." He mentions one male taken which "has a patch of orange red surrounding the base of the bill." Mr. McBride further notes that he took two specimens and saw many more about five miles north of the Indiana line in Michigan.

Mr. Ridgway says of Mr. H. K. Coale's observations in this State: "On May 11th a few Prothonotary Warblers were found in the woods along the Kanakee River, in Starke County, Indiana, about sixty miles southeast of Chicago. On the 18th a dozen or more were seen, and on the 25th, having by that time 'learned their clear, sharp note, repeated four or five times on the same pitch,' he could hear them all along the timber; but as he looked for them near the water's edge in the 'pucker brush' he did not see many. By carefully following the call of the male he discovered that the birds kept in the tops of the small trees, often flying across the river in pairs and alighting well up. On June 1st he had no trouble in seeing them and procuring specimens. They were occupied around the dead stumps, about ten feet from the ground. On the 8th of June he gave his attention to hunting for their nests and found several. Young were found flying about June 15th. Mr. Coale says that 'the Prothonotary Warbler is the most abundant summer resident of this locality, excepting perhaps the White-bellied Swallow and Redstart.'" Mr. Coale informed me he had on one occasion found, in the same locality, "at least fifty pairs nesting within less than a mile." Mr. Wm. Brewster has given an account of his observations on this species in Knox County (Bull. Nutt. Orn. Club, 1878, p. 153.) I have also presented at more length some notes on its occurrence in this State. (Ornithologist and Oölogist, Vol. XIII, 1878, pp. 33 and 34.)

GENUS *HELINAIA* AUDUBON.

* 243. *Helinaia swainsonii* Aud. SWAINSON'S WARBLER.

Rare summer visitor to the southwestern part of the State. It was identified by Mr. Ridgway in Knox County, where he informs me it breeds. (Bull. Nutt. Orn. Club, 1878, p. 163; Orn. of Ills., pp. 121-3.)



Head of Worm-eating Warbler, nat. size.

GENUS *HELMITHERUS* RAFINESQUE.

* 244. *Helmitherus vermivorus* (Gmel.). WORM-EATING WARBLER.

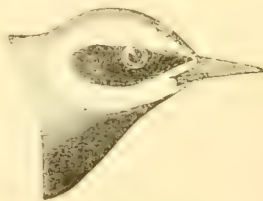
Common resident in the southern half of the State, varying somewhat in localities. In the Whitewater valley it is very common in the denser woodland, especially where fallen trees and brush are plentiful. Along the valley of Sugar creek in Parke and Montgomery counties they were not uncommon May 19 and 20, 1887. Prof. Evermann took a nest and three eggs on the latter date at "Pine Hills," in Montgomery County. Mr. H. W. McBride notes their "tolerably common" occurrence in Dekalb County, where he mentions them as breeding, in May, 1890. They arrive in Franklin County April 22-30, and depart early in September. Soon after arriving they begin mating. I have noted them mating April 26 and on until May 18. I have found the young July 1. They are birds which would not be noticed by the casual observer. Most often they are to be found in the darker recesses of the forest, where it is exceedingly difficult to distinguish even

more plainly marked forms. Until one learns that the song of the Worm-eating Warbler is so similar to that of the Chipping Sparrow that it is difficult to distinguish it, he will be at a loss to know much of the former bird. Whenever one recognizes the song of a "Chippy" in the denser woodland it is safe to conclude that it is that of the Worm-eating Warbler.

GENUS *HELMINTHOPHILA* RIDGWAY.

245. *Helminthophila pinus* (Linn.). BLUE-WINGED WARBLER; BLUE WINGED YELLOW WARBLER.

Common summer resident in the southern half of the State. Breeds. Its range is almost identical with the last mentioned species, but, unlike it, it prefers the more open woodland, where its unmistakable note may be heard, usually from among the taller trees, throughout the entire day. In the northern part of the State it is rare. It has been taken in Putnam County, (Jenkins); Carroll County, (Evermann); Dekalb County, (Mrs. Hine, McBride); Allen County, (Stockbridge). It breeds throughout its range in our State. They arrive in Southern Indiana about with the Worm-eating Warbler (April 20-25), and are to be found pairing from April 27 to May 15.



Head of Golden-winged Warbler, nat. size.

246. *Helminthophila chrysoptera* (Linn.). GOLDEN-WINGED WARBLER.

Migrant throughout the State, summer resident in the northern portion; breeds. Generally throughout Southeastern Indiana this bird is considered a rare one, but after we became more accustomed to its habits Mr. Quick and I seldom took trip over the hills late in April or early in May without meeting some of these beautiful birds. Sometimes they were quite common. They seem to be much more numerous in the southwestern and northern part of the State during the migrations. They have been noted breeding in Dekalb County (Mrs. Hine), Starke County (Coale). Mr. Coale notes that the males continue singing into June. In the Whitewater valley they prefer the more broken land usually well towards the hilltops where they pass the time among the sugar maples. Mr. Ridgway says it is "a common species during the spring migration in Wabash County, Illinois, and in adjacent counties of Indiana, and is hardly, if at all, less rare in fall." (Orn. of Ills., pp. 127-8.) Mr. H. W. McBride has recently observed a pair building their nest in Lagrange County.

247. *Helminthophila ruficapilla* (Wils.). NASHVILLE WARBLER.

Migrant, not rare. More common apparently in the Wabash Valley. Not usually common in the southeastern part of the State. May 5-11, 1885, they were comparatively common in Franklin County. Mrs. Hine notes they were very common the spring of 1889 in Dekalb County. Dr. Brayton gives it upon the authority of Mr. Nelson as a "very common migrant in Lake County, and also a rare resident." (Birds of Ind., p. 105.)

248. *Helminthophila celata* (Say). ORANGE-CROWNED WARBLER

Rare migrant. It is difficult for one who is not acquainted with this bird to distinguish it in some of its phases from the Nashville and Tennessee Warblers. In the early part of May, 1875, these birds were tolerably common in the vicinity of Brookville in company with the last mentioned species. I have found them there also three other times, the last May 5, 1889. Several have been taken near Indianapolis (Brayton.) It has also been noted from Knox and Gibson counties (Ridgway), Vigo County (Evermann), Carroll County (Sterling), Dekalb County (H. M. McBride), Lake County (Coale).

249. *Helminthophila peregrina* (Wils.). TENNESSEE WARBLER.

Common migrant; often exceedingly abundant in autumn. In spring they frequent the woods and in autumn seem to prefer the weed patches and briars and bushes in the fence corners. They are present from April 30 to May 17 in spring, and from September 6 to October 13 in fall, in the vicinity of Brookville.

GENUS COMPSOTHTYPIS CABANIS.

250. *Compsothlypis americana* (Linn.). PARULA WARBLER.

Usually tolerably common migrant; rare summer resident; breeds. Some years they are quite common during the migrations and others rare. They are much more common in spring. Arrive in Southern Indiana from April 25 to May 5, and usually are mating when they arrive. The bulk of individuals have disappeared by May 15. Has been taken by Mr. Ruthven Deane at English Lake June 3, 1888; Putnam County, July 2, 1889 (Clearwaters); summer resident LaPorte County (Byrkit); breeds in Knox and Gibson counties (Ridgway). They pass to the southward about the middle of September.

GENUS DENDROICA GRAY.

Subgenus PERISSOGLOSSA Baird.

251. *Dendroica tigrina* (Gmel.). CAPE MAY WARBLER.

Generally rare migrant southward; although found almost every year by the careful investigator, but few specimens are noted; in the northern part of the State more common. More common in spring than autumn. In May, 1881, they were comparatively common for this species in Franklin County. They arrive in spring about April 24, and most individuals leave the southern portions by May 10. Mr. Geo. C. Hubbard reports a specimen from Jefferson County May 23, 1888, which is unusually late. Mr. Robert Ridgway reports this species as very common in Knox County in the spring of 1885. He obtained five specimens May 9.

Subgenus DENROICA Gray.

252. *Dendroica æstiva* (Gmel.). YELLOW WARBLER; YELLOW-BIRD; SUMMER YELLOW-BIRD.

Abundant summer resident throughout the State, frequenting orchards, lawns, trees along streams and the shaded streets of towns. A well known little yellow bird without black markings. Breeds abundantly. Arrives in southern part of the State April 11 to 18 and leaves about September 20. Reaches the northern part of the State April 21 to May 1. A valuable little bird.

253. *Dendroica caerulescens* (Gmel.). BLACK-THROATED BLUE WARBLER.

Migrant; in some localities rather common, in others rare. Along the White-water River they frequent the hill tops and the oak woods on the uplands. In that part of the State they arrive April 26 to May 1 and pass northward by May 14. They reach the northern part of the State by May 1 to 3 and leave by May 18. In autumn they are found in the northern part of the State from September 1st until early October (October 3, 1875), and in the southern portion of the State remain but little longer (October 5, 1887).

254. *Dendroica coronata* (Linn.). MYRTLE WARBLER; GOLDEN CROWN WARBLER; YELLOW-RUMP WARBLER.

Abundant migrant, also winter resident in some numbers in the southern part of the State. The winter of 1886-87 they were specially abundant all winter,

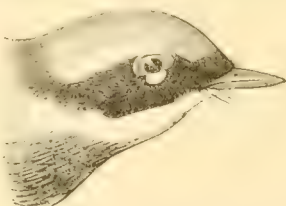


Head of Yellow-rumped Warbler, nat. size.

frequenting the evergreen trees in towns and about farm houses. They reach the northern part of the State in spring, April 11 to 15, and remain until May 16 to 19. In autumn they are found from September 20 to October 11.

255. *Dendroica maculosa* (Gmel.). MAGNOLIA WARBLER; BLACK AND YELLOW WARBLER.

Migrant; common, generally. In the Whitewater Valley it is of regular occurrence, but not very common. A quiet warbler, frequenting the more open



Head of Black and Yellow Warbler, nat. size.

woods and thickets. Arrives April 21 to May 5, passes northward May 16 to 19. In autumn they have been noted from September 7 to October 1.

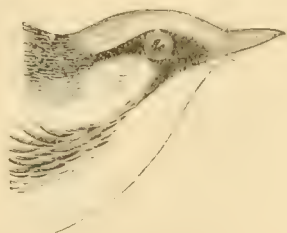
*256. *Dendroica caerulea* (Wils.). CERULEAN WARBLER; BLUE WARBLER.

Summer resident; abundant, southward; tolerably common in the northeastern part of the State, in the northwestern part it is rare or unknown. The most common of the tree-inhabiting warblers in southeastern Indiana. Breeds. Frequents woods, preferably those containing much underbrush. Arrives April 19 to 30 in Franklin County. I have never found when they depart, but suppose it is early in August, since I have observed none after that date. I have observed them paired as early as April 26, and have seen them building their nests May 8. To most

persons this bird, notwithstanding its numbers, is unknown. I have given some more extended notes on its habits heretofore. (Ornithologist and Oölogist, Vol. IX, 1884, pp. 27-28.)

257. *Dendroica pennsylvanica* (Linn.). CHESTNUT SIDED WARBLER.

Common migrant; summer resident in extreme northern part of State, Laporte County (Byrkit). Somewhat later in arriving in spring than some other species.

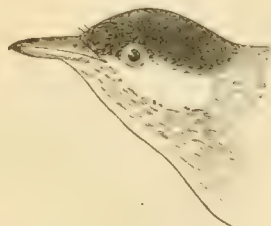


Head of Chestnut-sided Warbler, nat. size.

In southern Indiana they arrive May 1 to 5 and pass south in fall from the latter part of August to October 3. Knowledge concerning its summer range in this State is much desired. This is a rather quiet species, frequenting the hill-tops and uplands. "Breeds sparingly in the north of the State." (Brayton.)

258. *Dendroica castanea* (Wils.). BAY-BREASTED WARBLER.

Migrant, not generally common. Arrives with last species and passes south from early September to late October. In habits this and the last preceding species are much alike.



Head of Black-poll Warbler, nat. size.

259. *Dendroica striata* (Forst.). BLACK-POLL WARBLER.

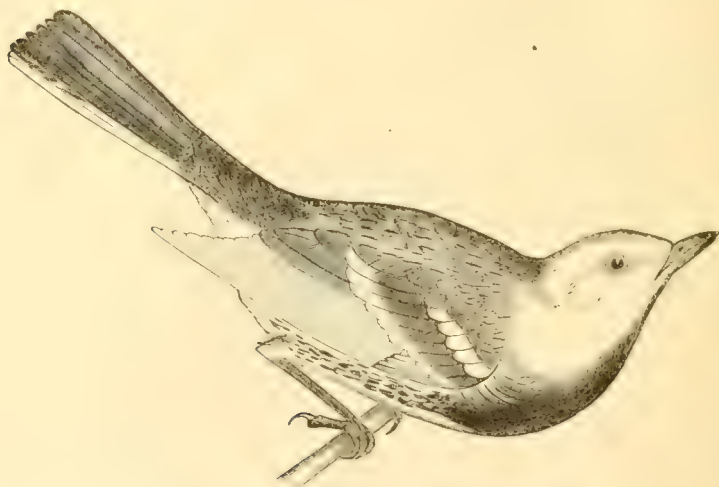
Migrant, usually rather rare but sometimes common. The last of the tree-inhabiting warblers to pass north in spring. Arrives in Southern Indiana April 27 to May 1, and generally leaves by May 20, although Mr. G. C. Hubbard has found it in Jefferson County as late as May 23. In the fall they arrive from the North about the middle of September and some individuals remain until the middle of October. Mr. J. Grafton Parker notes them as "very abundant" at Cole-hour September 20, 1884.

260. *Dendroica blackburniæ* (Gmel.). BLACKBURNIAN WARBLER.

Common migrant. A very beautiful warbler, arriving some years by April 15 and passing northward May 10 to 16. In autumn they may be noted returning late in August, and are to be found well into September.

261. *Dendroica dominica albilora* Baird. SYCAMORE WARBLER; WHITE-BROWED YELLOW-THROAT WARBLER.

Summer resident, generally common southward and as far north in the Wabash Valley as Montgomery and Carroll counties. Throughout the remainder of the State of rare or accidental occurrence. In the extreme northwest part of the State it appears to be wholly wanting, although a few have been found about Chicago. In the southern part of the State it frequents the valleys of streams, where, among the sycamores, cottonwoods and elms, its peculiar song is heard. In autumn they extend their range to some extent locally, and are often found about the orchards and lawns. I have never known them to frequent the uplands. They are more common in the lower Whitewater Valley than any other species frequenting such localities, yet I do not know that it has been taken as far north as Richmond. May 19 and 20, 1887, I found them very common along Sugar Creek, in Parke and Montgomery counties. Mr. Stockbridge notes it as rare in Allen County, and Mrs. Hine has seen but one, and that in September or October, in Dekalb County. Neither Mr. Deane nor Mr. Coale has been successful in finding it in the Kankakee Valley or in Lake County. They breed commonly. Usually they arrive in the vicinity of Brookville April 12 to 18, but in 1882 one was seen as early as April 3. They begin mating by April 22, and a specimen taken May 19, 1882, contained an egg ready to be laid. They pass southward late in September or early in October. They are said to be rather common in summer in the vicinity of Detroit, Mich.



Black-throated Green Warbler, nat. size.

262. *Dendroica virens* (Gmel.). BLACK-THROATED GREEN WARBLER.

Very common migrant. Noted in the southern part of the State from April 23 to May 11. Mr. Coale has found it in Lake County May 24. In autumn they appear late in August (29th), and occasionally remain until October 8. They are generally very abundant throughout September. Since Mr. Nelson found a few breeding in Northeastern Illinois (Birds Northeastern Illinois, p. 100), it is not unreasonable to expect they will be found to breed in Northern Indiana.

* 263. *Dendroica vigorsii* (Aud.). PINE WARBLER; PINE-CREEPING WARBLER.

Rare migrant; rare summer resident. So far as I know has been noted only in April and October in the southern part of the State. "Summer resident," Laporte County (J. W. Byrkit). Mr. Nelson found it breeding rarely in North-eastern Illinois (Birds of N. E. Ills., p. 100). Also, in Lake County, Ind., he found both old and young (Birds of Ind., p. 108). Mr. Ridgway informs me of its breeding in Knox and Gibson counties. In the southeastern part of the State they are found in spring as sugar maples are blossoming and frequent these trees, climbing about them after the manner of a Creeper. They depart by the time other warblers become common. In autumn they remain until mid-October (October 15, Richmond, Ind.—DeWitt).

264. *Dendroica palmarum* (Gmel.). PALM WARBLER; YELLOW RED-POLL WARBLER.

Migrant, in some localities reported common. In the lower Whitewater valley I have never found it very common. They arrive in that vicinity about April 20 and leave by May 5th or 6th; in autumn they appear in mid-September and remain sometimes until October 13. In the western and northern part of the State they appear to be more common.

265. *Dendroica discolor* (Vieill.). PRAIRIE WARBLER.

Rare migrant. It has been noted by Mr. Robert Ridgway, from Knox and Gibson counties, where he seems doubtful whether it breeds or not. The late Mr. C. H. Bollman found a specimen in Monroe County April 26, 1885. So far as I know these are the only Indiana records. Mr. Ridgway notes it as "one of the least common species" in Illinois (Bull. Ill. State Lab. Nat. Hist. No. 4, p. 175). Dr. A. W. Brayton informs me of its occurrence at London, Ky., June, 1878. Mr. C. W. Beckham also notes it from Kentucky. Dr. Langdon gives it as a rare migrant in the vicinity of Cincinnati in May (Revised List, Journ. Cin. Soc. Nat. Hist., Jan., 1879, p. 6). I have never been fortunate enough to find it in the Whitewater valley.

GENUS SEIURUS SWAINSON.

266. *Seiurus aurocapillus* (Linn.). GOLDEN-CROWNED THRUSH; OVEN-BIRD.



Head of Golden-crowned Thrush, nat. size.

Abundant summer resident; breeds. Frequents the woodlands overgrown with underbrush, where its loud peculiar call will be noticed by even the casual observer throughout late April and May. Very abundant among the hills of Southern Indiana. This and the Worm eating Warblers frequent similar localities, and while each is taken for the other by persons unfamiliar with the two forms, in the localities I have explored I have found the latter the most numerous. In Southern Indiana they arrive April 17 to 25 and are, after a few days, common. They pair some years by May 1st, and I have found the nest with set of eggs May 13th. They leave for the South late in September. I have never found them after October 1st.

- *267. *Seiurus noveboracensis* (Gmel.). WATER THRUSH; SMALL-BILLED WATER THRUSH; NEW YORK WATER THRUSH; WATER WAGTAIL.

Migrant, generally rare; in the northern counties rare summer resident; breeds. Hon. R. Wes. McBride and Mrs. Jane L. Hine have both informed me of its breeding in Dekalb County. In certain localities some seasons it is common. Professor Evermann reported it quite common at Bloomington in the spring of 1888, and the same spring Mr. Ruthven Deane found them common at English Lake. I have never found the species common in the Whitewater Valley.

268. *Seiurus noveboracensis notabilis* (Ginn.). GRINNELL'S WATER THRUSH.

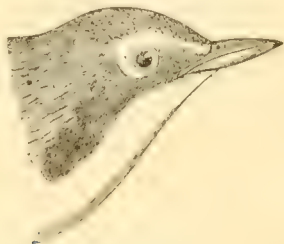
The only records of the occurrence of this bird in the State that I know, are supplied me by Mr. Ridgway, who writes: "Obtained by me May 4 and 6, 1885, at Wheatland (Knox County) three adult males, numbered, respectively, 104,998, 104,999 and 105,000, U. S. Nat. Mus. register. I have taken it also in Wabash and Richland counties, Illinois, and we have it from Warsaw, Ills."

- *269 *Seiurus motacilla* (Vieill.). LOUISIANA WATER THRUSH; LARGE-BILLED, WATER THRUSH; WATER WAGTAIL.

Summer resident; common southward; rare northward. Perhaps rare winter resident in lower Wabash Valley. Frequents woodlands along streams and about ponds, whence its loud characteristic song comes to the ear. When seen, a nervous bird with a vertical, wagging motion to the tail is noted; hence its name, "Wag-tail." In the Whitewater and the greater part of the lower Wabash Valley they are common, but in some localities they are rare. I found them common along Sugar Creek in Parke and Montgomery counties, May 19 and 20, 1887, at which time they were building their nests. They are rare over the northern part of the State. Mr. H. K. Coale notes the capture of a single specimen in Lake County, May 24, 1879. Mrs. Hine reports them more common in Dekalb County in spring, but rare in summer. They arrive in spring very early, reaching Southern Indiana as early as April 4, some years. They seem to be paired when they arrive. The nest is often built by April 15, and I killed a bird containing an egg ready to be laid, April 21. They pass south in September. The latest I have noted them is September 21.

GENUS GEOTHILYPIS CABANIS.

Subgenus OPORORNIS Baird.



Head of Kentucky Warbler, nat. size.

- *270. *Geothlypis formosa* (Wils.). KENTUCKY WARBLER.

Summer resident over the southern two-thirds of the State; common in the Wabash Valley, but apparently rare elsewhere. In Knox County it is "one of the most abundant of the summer residents" (Ridgway, Bull. Nutt. Orn Club, 1882, p. 20). It is rather common in Monroe County, where young were out of nest June 4, 1885 (W. S. Blatchley); common in Vigo County (Evermann). I

found it common in Parke and Montgomery counties May 29, 1887; a nest and one egg was taken at "Shades of Death" on that date. Dr. A. W. Brayton informs me of the capture of two specimens three miles southwest of Indianapolis in May, 1878. In the southeastern quarter of the State they are very rare, but few have been noted in the Whitewater Valley, yet about Cincinnati they are quite common (Dury and Freeman, Journ. Cin. Soc. Nat. Hist., 1879, p. 2). They arrive by April 17th to May 1st, and most, if not all of them, leave by the middle of July.

271. *Geothlypis agilis* (Wils.). CONNECTICUT WARBLER.

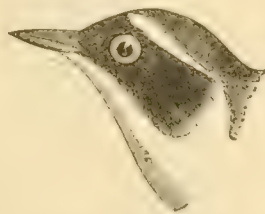
Migrant, usually somewhat rare. Arrives late in May and passes south late in September. They arrive May 17th to 20th and leave by 26th. They frequent the borders of woods and thickets and brush patches along fence rows. Somewhat common in Franklin County May 24 and 25, 1882. Rather common migrant in the vicinity of Chicago (Nelson). Quite common at English Lake May 4, 1891 (Deane).

Subgenus *GEOTHYLPIS* Cabinis.

272. *Geothlypis philadelphia* (Wils.). MOURNING WARBLER.

Rare migrant generally; occasionally common locally. Mr. Ridgway notes "became suddenly very common May 6, 1881 (Bull. Nutt. Orn. Club, 1882, p. 20). May be common resident in some localities. Mr. H. K. Coale writes me that Mr. Geo. F. Clingman shot a specimen in Lake County June 1, 1879. This specimen was identified by Prof. R. B. Sharpe as *Geothlypis macgillivrayi* (Aud.) (Cat. Birds Brit. Mus., Vol. X, p. 365). Mr. Coale says this was undoubtedly a *G. philadelphia*, and writes that Mr. Ridgway is of the same opinion. In southeastern Indiana it seems especially rare, only one specimen having been taken in the Whitewater Valley.

***273. *Geothlypis trichas* (Linn.). MARYLAND YELLOW-THROAT.**



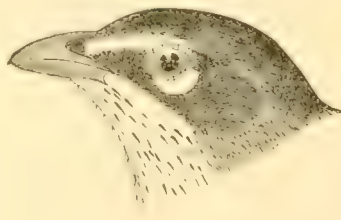
Head of Maryland Yellow-throat, nat. size.

***274. *Geothlypis trichas occidentalis* (Brewst.). WESTERN YELLOW THROAT.**

Mr. Ridgway thinks the *occidentalis* form is the prevailing representative in Indiana and Illinois, but for lack of material for comparison no separation of the two forms has been made in this paper. It may be that both forms are found within our limits. Common summer resident among the grasses, sedges and shrubbery about damp places and along the valleys of streams; breeds. I have but once found it among the hills, although not far away its peculiar song might be heard from many parts of a patch of horse-weeds and willows. Its song resembles very much that of the Carolina Wren (*T. ludovicianus*). Arrives in spring from April 16 to 25, the nest with eggs is to be found throughout the latter part of May. My friend, Mr. E. R. Quick, has in his collection a curious nest

this bird, or rather three nests, two of which are built within the other. In the original nest had been deposited the egg of a Cow-bird *Molothrus ater*, Bodd., then within that nest, and rising above it, the Yellow-throat had built another nest, which also became the depository of the hope of offspring of this unnatural bird; again the little Warbler constructed a third nest upon the other two, burying the second Cow-bird egg, and in this nest laid her complement of eggs. This curious nest, which is like some others which have been found, was obtained near Brookville. They leave for their winter home in mid-September.

GENUS *ICTERIA* VIEILLOT.

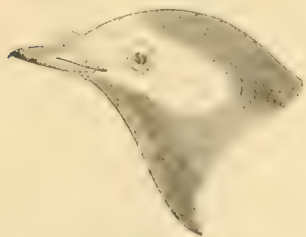


Head of Yellow-breasted Chat, nat. size.

275. *Icteria virens* (Linn.). YELLOW-BREASTED CHAT.

Summer resident; common in southern half of the State; rare northward and in the extreme northern counties almost if not quite unknown. Breeds throughout its range in the State. They frequent brier patches and thickets; their favorite haunt being among the bushes of a blackberry "patch." They are great ventriloquists. Often a person to whom their habits are new will look for quite a long time towards some spot from which the sound comes but where the bird is not. Even those accustomed to their odd ways are often deceived and search for them in places other than where they are. They have quite a variety of notes which, with their strange antics, render them the most interesting summer bird among the copses. At mating time they devote much time to aerial evolutions, which at all times are interesting because of their oddity, but at times become exceedingly ludicrous. While performing these various evolutions they give voice to a multitude of strange sounds which seem to come from "here, there and everywhere" except the throat of the odd and awkward bird descending towards the clump of bushes near by. They arrive from April 24 to May 5, and are at once known by the many strange sounds which come from some well known thicket. They begin pairing within a day or two after arrival and then proceed to construct a nest, which is usually placed from four to six feet from the ground in a bush or upon a blackberry stalk. Eggs are found late in May and early in June. After the young are able to leave the nest the family keeps together for some time at least. Most of the Chats leave in September, but when food is abundant sometimes remain later. I obtained one December 1, 1882. It was feeding upon poke berries. It is rare in Allen County, (Stockbridge); also in Dekalb County, (Hon. R. W. McBride); in Starke County, (Deane); and Mr. Parker notes but a single occurrence in Lake County. Mr. H. W. McBride reports it from Elkhart County.

GENUS SYLVANIA NUTTALL.



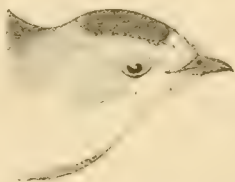
Head of Hooded Flycatcher.

276. *Sylvania mitrata* (Gmel.). HOODED WARBLER: HOODED FLYCATCHING WARBLER.

Summer resident, generally rather rare, especially in the northern part of the State; breeds. More common during the spring migration. I have never found it as a summer resident in Franklin County, but Dr. Hammond says it is rarely such (Ind. Geol. Rep't, 1869, p. 217). Mr. Ridgway notes his observations in Knox County as follows: "Rather common in deep woods, but much less so than in the vicinity of the cypress swamp further south" (Bull. Nutt. Orn. Club, 1882, p. 20). The same observer informs me that they breed in Knox and Gibson Counties. Dr. F. W. Langdon has noted it as a summer resident in the vicinity of Cincinnati (Journ. Cin. Soc. N. H., July, 1880, p. 123). Prof. Evermann notes they are not common in Vigo County. Mrs. Hine informs me that she has but twice observed them in Dekalb County, once as late as October. Mr. Coale notes two occurrences within the State, one at Davis Station, Starke County, the other in Lake County, where, May 24, 1879, after a storm, he picked up a dead one upon the shore of Lake Michigan. Many other birds were also found dead at the same time. This is another evidence of the great destruction of bird life on our lakes by storms at the height of the migrations. Mr. G. G. Williamson was fortunate enough to find in Monroe County, May 26, 1886, a nest of this species containing six young. They are late in arriving, never having been noted in Franklin County before April 30, and usually not until the 6th and 10th of May. They frequent the denser woodland, where they are found among the underbrush and lower branches of the trees. They seem to be quite active. I have often noticed a peculiar spreading and closing of the tail. They remain until late in autumn, having been taken at Brookville as late as October 20. The most abundant I have ever seen them was among the dense woods along Sugar Creek, in Parke and Montgomery counties, where they were quite common May 19 and 20, 1887.

277. *Sylvania pusilla* (Wils.). WILSON'S WARBLER: GREEN BLACK-CAPPED FLYCATCHING WARBLER; BLACK-CAPPED YELLOW WARBLER.

Migrant; more common in fall than spring. In southeastern Indiana I have never found them common, in fact in spring they are exceedingly rare. In the

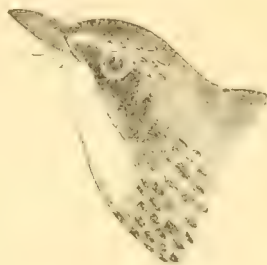


Head of Wilson's Warbler.

northern part of the State they appear to be more common. Mrs. Hine reports them as tolerably common in Dekalb County, and Mr. J. G. Parker notes them as rather common in the spring of 1886.

278. *Sylvania canadensis* (Linn.). CANADIAN WARBLER; CANADIAN FLYCATCHING WARBLER.

Migrant; more common than either of the last mentioned species and unlike the last, most numerous in spring. Frequents thickets and the undergrowth of



Head of Canadian Flycatcher.

somewhat dense woods. It may breed in the extreme northern counties, since Mr. Ridgway notes that it does in that portion of Illinois (Bull. No. 4, Ill. State Lab. Nat. Hist., p. 175). Arrives in Southern Indiana April 18 to May 5, and the rear of the migrants passes by May 16, which is the latest date reported. They pass South late in August and early in September.

GENUS SETOPHAGA SWAINSON.

*279. *Setophaga ruticilla* (Linn.). AMERICAN REDSTART.

Common summer resident, frequenting the woodlands. Breeds. A lively bird, restlessly moving in springtime from branch to branch, singing its peculiar song and stopping now and then either the song or its wanderings to pick an insect from a leaf near by, or to dart, Fly-catcher-like, after a passing fly. In the northern part of the State this is perhaps the most abundant small bird in the woods. In Franklin County the earliest first arrival noted was April 25th, and the latest was May 4th. They have been noted pairing as early as May 4th, and I have found the nest on May 17th. The nest is a very neat structure placed in the fork of the limb of a tree. I do not remember ever to have seen one over thirty feet from the ground. While the bulk leave during September, a few remain until early October. Mrs. Hine notes the occurrence of a specimen in Dekalb County as late as October 11.

FAMILY MOTACILLIDÆ. WAGTAILS.

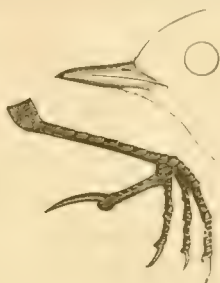
GENUS ANTHUS BECHSTEIN.

Subgenus ANTHUS.

280. *Anthus pennsylvanicus* (Lath.). AMERICAN PIPIT; AMERICAN TITLARK.

Abundant migrant, frequenting meadows and pastures, the shores of streams and lakes in flocks. They pass northward during March, April and early part of

May. They may be observed occasionally mating just before they proceed



Bill and foot of Titlark. nat. size.

northward. They arrive from the North early in September and are to be found throughout October and the early part of November.

FAMILY TROGLODYTIDÆ. WRENS, THRASHERS, ETC.

SUBFAMILY MIMINÆ. THRASHERS.

GENUS MIMUS BOIE.

281. *Mimus polyglottus* (Linn.). MOCKING BIRD.

Rare summer resident, and rarer resident in the southern half of the State; more numerous in the southwestern portion; breeds. I have only seen it in Franklin County in summer, but have taken the young barely able to fly. It has also been reported breeding in the following counties: Decatur, (Hughes); Vigo, (Evermann); Monroe, (Blatchley, Evermann); Knox and Gibson, (Ridgway); Posey, (Elliott); Mr. Blatchley found it in Vigo County February 14, 1888, and Prof. Evermann in the same county in January. Mr. H. K. Coale saw a Mocking bird in Starke County January 1, 1884.

GENUS GALEOSCOPTES CABANIS.

* 282. *Galeoscoptes carolinensis* (Linn.). CAT-BIRD.

Abundant summer resident. breeds; well known to every one by its common name. In the lower Wabash Valley they occasionally arrive by April 3, but in the lower Whitewater Valley I have never found them before April 16. They seem to move earlier throughout the entire Wabash Valley than along the eastern portion of the State, being noted throughout the northwest quarter of the State as early as they are found in Franklin County. They pair soon after their arrival, and nests with eggs are common throughout the last half of May. Most of them leave for the South during September, but a few remain into October. Mrs. Hine has found them in Dekalb County as late as October 2, and I have taken them in Franklin County October 4. While one would not suspect the Cat-bird to be one easily affected by cold, it is nevertheless true that it is very susceptible to cold. It was one of the birds destroyed in great numbers by the sudden cold spell of May 20-21, 1883.

GENUS *HARPORHYNCHUS* CABANIS.Subgenus *METHRIOPTERUS* Reichenbach.

- *283. *Harporhynchus rufus* (Linn.). BROWN THRASHER; BROWN THRUSH; TAWNY THRUSH; BROWN MOCKINGBIRD.

Common summer resident; breeds. Both this and the last preceding species occasionally winter in Southern Illinois, and may occasionally do so in Southern Indiana. I have not learned of the occurrence of the Brown Thrasher in Indiana before March 2, nor after October 2. They seem to move forward at the time of the spring migration by irregular movements, covering more or less territory and stopping for a longer or shorter period after each forward move. There is a locality two miles south of Brookville where these birds arrive from two days to a week before they are to be found two or three miles farther up the valley. I have examined these movements almost every year for twelve years, and in my observations have had the intelligent coöperation of my friend, Mr. E. R. Quick. No bird, perhaps, illustrates the fact of the return of individuals to the home of the previous year more plainly than this. I have found them mating March 31, with a complement of eggs April 29, and with young May 11.

SUBFAMILY TROGLODYTINÆ. WRENS.

GENUS *THRYOTHORUS* VIEILLLOT.Subgenus *THRYOTHORUS*.

- *284. *Thryothorus ludovicianus* (Lath.). CAROLINA WREN; BIG BROWN WREN.



Carolina Wren

Common resident southward; rare spring and summer visitor and perhaps summer resident northward. It has been reported from Dekalb County by Hon. R. Wes. McBride, Mrs. Hine and Mr. J. O. Snyder; from Porter County by Mr. J. W. Byrkit, and I have myself noted it in Parke County. From the northeastern part

of the State none have been reported. They frequent both towns and country, nesting as often in the corner of a "worm fence" or within a brush pile as about the outhouses near our homes. This is the characteristic Wren of the lower Whitewater Valley, where, as is the case in some other localities, it takes the place of all others. They remain paired throughout the year and seem to breed almost the whole year through. Mr. G. R. King informed me of a pair breeding in a box beneath the shed of his drug store in the winter. I have known them to mate in February, to begin building March 13, complete the nest March 22, complement of five eggs March 29, eggs all hatched but one April 11, young nearly ready to leave nest April 24. I have also found them with young July 1. They are usually rather shy, but I have known a pair to build in a fleece of wool, hung on a porch within two feet of the principal entrance to the house.

Subgenus *THRYOMANES* Sclater.

*285. *Thryothorus bewickii* (Aud.). BEWICK'S WREN; LONG-TAILED WREN.

Common summer resident, and possibly rare resident, throughout the southern part of the State. Has not been reported north of Vigo and Putnam counties, in each of which it is rather common, and Marion County, from which Dr. Brayton, records it. I have found it at Brookville, March 1, but usually it appears about a month later; by the middle of April they are mating. They are, in many localities, the "house wrens," and are becoming such in the lower Whitewater Valley, although they also make their homes about brush-heaps, logs, rail piles, old fences, etc., but not so common only perhaps as the last mentioned species. The species is of comparatively recent occurrence, regularly at least, in Franklin County. Up to 1869 Dr. Haymond had identified but few specimens, and from that date until 1877 none were noted. In the spring of the latter year Mr. E. R. Quick identified several specimens of this species. From that time to 1881 an occasional individual was reported; since the last mentioned date, however, each year they have been more numerous, until now they are very common. At Connersville, eighteen miles north, and Richmond, thirty miles north, none have been seen. Early in May (1891) Mr. E. R. Quick observed a pair building a nest in the draw-bar of a freight car, which was standing on a siding near Brookville.

GENUS *TROGODYTES* Vieillot.

Subgenus *TROGLODYTES*.

*286. *Troglodytes aëdon* Vieill. HOUSE WREN.

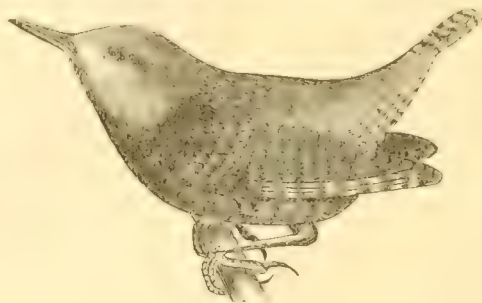
Common summer resident in most localities in the northern and central portions of the State; southward, regular migrant, or rarely summer resident; in some parts of the State exceedingly local in its distribution, and also changing its distribution. Mrs. Hine informs me that they first appeared in Dekalb County in 1883 and are now common. At Connersville and Richmond they are common summer residents, while at Brookville they have been known as rare migrants until within the past few years, when two pairs have been noted breeding. In localities where Bewick's Wren is found the House Wren is not often noted as a summer resident. They migrate about the same time as Bewick's Wren, and may be found nesting as early as late April and early May.

Subgenus *ANORTHURA* Rennie.

287. *Troglodytes hiemalis* Vieill. WINTER WREN.

Common migrant, and winter resident in some numbers. They arrive from the North, in the northern part of the State, late in September, and leave there,

passing North, late in April (24-29). In Southern Indiana they are most numerous from October 8 to December 1, and from March 7 to April 24. In the White-water Valley they are not often seen through December, January and February,



Winter Wren, nat. size.

but seem to be tolerably common at that season in the lower Wabash Valley. These little Wrens are most often seen about clearings, thickets, old fence rows, etc. While they are occasionally found about dwellings, they are not common.

GENUS CISTOTHORUS Cabanis.

Subgenus CISTOTHORUS.

288. *Cistothorus stellaris* (Licht.). SHORT-BILLED MARSH WREN.

Rare migrant southward; rare summer resident. I have no account of its breeding within the State. The only time it has been taken in Franklin County was September 23, 1879, when several were seen and two taken in a swampy ravine three miles from Brookville. Mr. J. R. Slonaker reports it from Vigo County May 8, 1889. Mr. H. K. Coale has twice reported it from Lake County, once July 4, 1881. Mr. Alexander Black has taken it in Putnam County. Mrs. Jane L. Hine has noted it April 24, 1888, from Dekalb County. They are quiet, retiring birds, frequenting the reedy margins of sloughs and the smaller lakes. They have been found breeding throughout Illinois (Ridgway) and at St. Mary's Reservoir, Ohio (Dury).

Subgenus TELMATODYTES Cabanis.

*289. *Cistothorus palustris* (Wils.). LONG-BILLED MARSH WREN.

Summer resident, abundant northward; not so numerous southward. Outside of the lower Wabash valley I do not know that it has been found as a summer resident in the southern half of the State, but is occasionally seen as a migrant. Mr. Ridgway informs me of its breeding in Knox and Gibson counties. It breeds in Vigo County (Evermann); also throughout the northern part of the State among the sedges, grasses and reeds of marshy places. Where suitable localities are numerous the birds breed abundantly. They are said to build quite a number of houses before they occupy one. Mr. J. Grafton Parker says: "Hardly one nest in twenty contains eggs. The birds must build many nests before laying, as the nests are much more plentiful than the birds." Dr. Haymond has told me of similar observations in Kosciusko County. Mr. E. W. Nelson says: "While the female is incubating, the male is constantly employed upon the construction of several unfinished nests, until often a pair may boast the possession of a dozen unoccupied tenements." Bull. Essex Inst., Vol. VIII, 1876, p. 97. They pass north from April

12th to May 13th. Mr. Ruthven Deane has found them breeding abundantly at English Lake in June and July. He has also noted them building August 4, 1889. They mostly pass south in September, but Mr. Deane has found a few remaining in Starke County as late as October 27.

FAMILY CERTHIIDÆ. CREEPERS.

GENUS CERTHIA LINNÆUS.

290. *Certhia familiaris americana* (Bonap.). BROWN CREEPER.



Details of structure of Brown Creeper, nat. size.

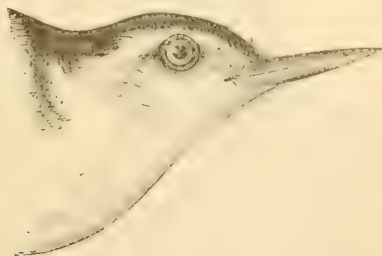
Common migrant and rare winter resident. Their occurrence in winter is irregular, but almost every winter they are heard of, at various times, from different localities throughout the State. I have never known it to breed in the State, but Mr. H. W. McBride thinks it breeds in Dekalb County. They are very common through Southern Indiana in early April and through October. They usually pass north before May 1st, but Mr. G. G. Williamson found it in Monroe County, May 30, 1888.

FAMILY PARIDÆ. NUTHATCHES AND TITS.

SUBFAMILY SITTINÆ. NUTHATCHES.

GENUS SITTA LINNÆUS.

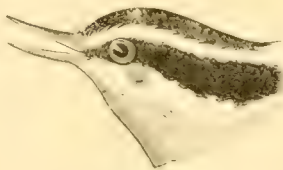
291. *Sitta carolinensis* Lath. WHITE-BREASTED NUTHATCH; "TOM-TIT."



Head of White-breasted Nuthatch, nat. size.

Common resident. A queer, blue-gray bird, with black or gray head and short tail, generally found creeping about the trunk and limbs of trees, as often head down as otherwise. Pleasant, cheery little fellows, who remain with us throughout the year, associating with Downy Woodpeckers, Tufted Titnices, Carolina Chickadees, Juncos and Tree Sparrows. A motley crowd, moving about for the sake of food and enjoying each other's company.

292. *Sitta canadensis* Linn. RED-BREASTED NUTHATCH; RED-BELLIED NUTHATCH; CANADA NUTHATCH.



Head of Red-breasted Nuthatch, nat. size.

Rare winter resident, regular migrant, but not generally common; rare summer resident in northern part of the State; breeds. Dr. Brayton notes its occasional breeding and Prof. Evermann thinks it breeds in Carroll County, where he obtained young just able to fly. In Franklin County I have never been able to find it throughout the winter. Generally they are to be found in some numbers in the denser woodland April 30 to May 15. They are more noisy and generally more active than the larger species. Mr. H. W. McBride has taken it as far north as Dekalb County, January 26, 1889.

SUBFAMILY PARINÆ. TITMICE.

GENUS *PARUS* LINNÆUS.

SUBGENUS *LOPHOPHANES* KAUP.

- *293. *Parus bicolor* Linn. TUFTED TITMOUSE; "SUGAR BIRD."



Head of Tufted Titmouse, nat. size.

Abundant resident in the southern part of the State, becoming rarer as one proceeds northward until it is unknown as a resident about half way from Indianapolis to the northern State line. North of its resident range it appears occasionally as a straggler, generally in autumn, spring and winter. Hon. R. Wes. McBride and Mrs. Jane L. Hine both report it as a rare visitor in Dekalb County. Mr. H. K. Coale found a pair in Starke County January 1, 1884. It is a common resident in Carroll County (Evermann); breeds. In the collection of Dr. A. W. Brayton is a beautiful albino of this species which is quite interesting. Their oft-repeated note, "Peto-peto," is a characteristic sound about the sugar camps "in sugar time," hence the farmers in many localities call it "Sugar Bird."

Subgenus *PARUS* Linnæus.

*294. *Parus atricapillus* Linn. CHICKADEE; BLACK-CAPPED CHICKADEE.



Chickadee.

Abundant resident in northern part of the State; southward it is only known as a rare winter visitor. Breeds.

*295. *Parus carolinensis* Aud. CAROLINA CHICKADEE; BLACK-CAPPED CHICKADEE.

Abundant resident throughout the southern part of the State, where it takes the place of the last mentioned species. It is a summer visitor but rare over much of the northern part of the State.

FAMILY SYLVIIDÆ. WARBLERS; KINGLETS; GNATCATCHERS.

SUBFAMILY REGULINÆ. KINGLETS.

GENUS *REGULUS* CUVIER.

296. *Regulus satrapa* Licht. GOLDEN-CROWNED KINGLET.



Golden-crowned Kinglet.

Common migrant; rare winter resident in southern part of State. They pass

northward in March and April and return in October and November. Miss H. E. Colfax reports its occurrence in Porter County, June 8, 1884.

297. *Regulus calendula* (Linn.). RUBY-CROWNED KINGLET.

Common migrant; not so numerous as the species last mentioned, and also arrives later. The immature birds remain after the old ones have gone. I always associate them with the blooming of apple trees, about which they are often seen. They sometimes remain in the southern part of the State until May 10. Miss H. E. Colfax also reports this species in Porter County, June 8, 1884. They pass south in September and October.

SUBFAMILY POLIOPTILINÆ. GNATCATCHERS.

GENUS POLIOPTILA SCLATER,



Head of Blue-gray Gnatcatcher, nat. size.

298. *Poliophtila cærulea* (Linn.). BLUE-GRAY GNATCATCHER.

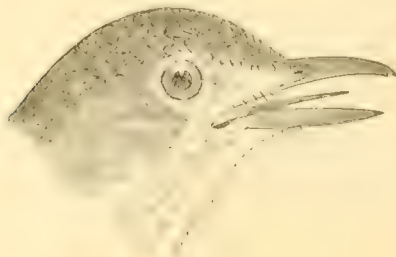
Abundant summer resident southward, not so common northward, and in some localities not found. Arrive from the South March 31st to April 15th; are usually paired upon arrival and at once proceed to construct their nest. The nests are covered with lichens, and the inside composed of fine fibre and spiders' web, making a very beautiful specimen of bird architecture. They have been reported from Starke County—"breeds," (G. Frean Morcom; H. K. Coale); Dekalb, (Mrs. Jane L. Hine); Porter, "summer resident," (J. W. Byrkit); Allen, "rare," (C. A. Stockbridge); Lake, breeding, (G. F. Clingman). They leave for the South in October. They are noisy little birds, who spy the intruder from afar and, like the Tufted Titmouse, continue their chatter until he has left the neighborhood of their home. They usually build their nest in the fork of a limb of some rough-barked tree in the more open woods. The nest, owing to its resemblance to a lichen-covered knot, is hard to find.

FAMILY TURDIDÆ. THRUSHES, SOLITAIRE, BLUEBIRDS, ETC.

SUBFAMILY TURDINÆ. THRUSHES.

GENUS TURDUS LINNÆUS.

Subgenus HYLOCICHLA Baird



Head of Wood Thrush, nat. size.

*299. *Turdus mustelinus* Gmel. WOOD THRUSH.

Common summer resident; breeds. A characteristic songster of the denser woodland. Arrives in Southern Indiana April 15th to 20th, and within the next ten days is found throughout the State. They mate the last week in April and early in May; full sets of eggs are sometimes found as early as May 6th to 10th, and their nests are met with through May, June and the early part of July—July 8th. They pass south late in August and early in September.

*300. *Turdus fuscescens* Steph. WILSON'S THRUSH; VEERY.

Common migrant over the western and northern part of the State, but very rare in Southeastern Indiana; locally resident. In Franklin County but two specimens have ever been taken, and I know of no others from the Whitewater valley. Dr. Langdon notes it as "a rare migrant in April, in the vicinity of Cincinnati." (Journ. Cin. Soc. Nat. Hist. Jan., 1879, p. 3.) Mr. Ridgway notes it as breeding in Knox and Gibson counties. Mrs. Jane L. Hine, writing of Dekalb County, says it is "tolerably common summer resident, April 28th to September 7th; breeds; abundant in willow-grown bottom land of Stony creek."

301. *Turdus aliciae* Ba'r'l. GRAY-CHEEKED THRUSH; ALICE'S THRUSH.

Migrant; common in some localities in the Wabash valley. In southeastern Indiana it is generally rare. Dr. Langdon notes it is in the vicinity of Cincinnati "rather common early in October, feeding on the berries of the sour gum." (Journ. Cin. Soc. Nat. Hist. Jan., 1879, p. 3.) Mr. Ridgway says of it in Knox County: "During the last week of April and the first three weeks of May it was very common; perhaps more so than any of the small thrushes." (Bull. Nutt. Orn. Club, Jan., 1882, p. 18.) Prof. Evermann notes it as common in Vigo County.

302. *Turdus ustulatus swainsonii* (Cab.). OLIVE BACKED THRUSH; SWAINSON'S THRUSH.

Common migrant; may possibly breed in extreme northern portion of the State. Arrive from the South April 25th, and pass northward by May 9th. In autumn they are present throughout September. "A rare summer resident in the north of the State."—Brayton (Ind. Birds, p. 95).

303. *Turdus aonalaschkæ pallasii* (Cab.). HERMIT THRUSH.

Abundant; migrant; frequenting the more open woodland and the wooded banks of streams. May occasionally breed, since Dr. Langdon gives, upon the authority of Mr. Charles Dury, a note concerning the taking of the nest and eggs near Cincinnati, May 10, 1877. (Journ. Cin. Soc. Nat. Hist., Jan., 1879, p. 3.) Arrives before the other thrushes in the spring, and remains after them in the fall. In Southern Indiana they may occasionally be found as early as March 29, and remain until April 30. Mr. Deane informs me they were abundant about English Lake May 25 and 26, 1889. In autumn they are found in the northern part of the State by September 22, and have disappeared on their journey southward by October 25.

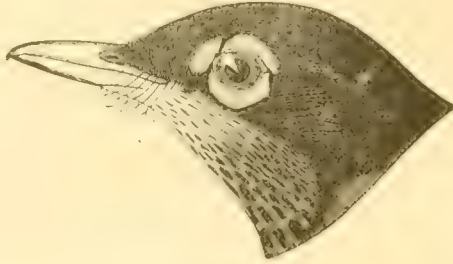
SUBFAMILY TURDUS. LINNÆUS.

GENUS MERULA LEACH.

*304. *Merula migratoria* (Linn.). AMERICAN ROBIN.

Abundant summer resident; breeds; resident regularly, in some numbers, southward, and occasionally, in suitable seasons, throughout the State and north

into Michigan. Mr. Jerome Trombley notes that they were present at Petersburg, Mich., in January and February, 1886, also February 9, 1887. In winter they seek the more sheltered places, usually away from our homes, hence it is



Head of Robin, nat. size.

rarely one sees them, even though they may be found. I have a number of references from central and northern Indiana concerning their occurrence in winter.

GENUS SIALIA SWAINSON.

*305. *Sialia sialis* (Linn.). BLUEBIRD.

Common summer resident; resident also, most numerous southward, but varying much in numbers different years; breeds. I do not think they are nearly so numerous as they were twelve or fifteen years ago. Certainly this is the case about our towns, where they have been driven off and their nesting sites occupied by the aggressive and unwelcome English Sparrow.

HYPOTHETICAL LIST.

The following list of species which have not been, as yet, positively reported from the State, is composed of those forms which have been taken in neighboring States, or whose known range seems to include Indiana. Some of them, it will be noticed, are of very rare or accidental occurrence in the locality where they have been found, and possibly may not be found at all within our limits. For the sake of abbreviation references are made as follows:

Ridgway Cat.—Ridgway's Catalogue of the Birds of Illinois, Bulletin No. 4, Illinois State Laboratory of Natural History.

Ridgway, Ill. Orn.—Ridgway's Ornithology of Illinois, 1889.

Ridgway Manual—Ridgway's Manual of North American Birds, Philadelphia, J. B. Lippincott & Co., 1887.

Gibbs—Gibbs's Annotated List of the Birds of Michigan, Bulletin of the U. S. Geological and Geographical Survey of the Territories, Vol. V, No. 3.

Wheaton—Dr. Wheaton's Report on the Birds of Ohio, Geological Survey of Ohio, Zoölogy and Botany, Vol. IV.

Beckham—Beckham's List of the Birds of Nelson County, Kentucky; Kentucky Geological Survey, 1885.

Nelson, N. E. Ill.—Nelson's Birds of Northeastern Illinois, Bull. Essex Institute, Salem Mass., 1876.

Nelson, S. Ill.—Nelson's Notes upon Birds observed in Southern Illinois, between July 17 and September 4, 1875, Bull Essex Institute, June, 1877.

FAMILY PODICIPIDÆ. GREBES.

GENUS COLYMBUS LINNÆUS.

Subgenus COLYMBUS.

1. *Colymbus holbœllii* (Reinh.). HOLBELL'S GREBE.

Illinois, rare winter resident (Ridgway Cat. p. 203); Ohio, rare migrant (Wheaton, p. 566); Michigan, rare (Gibbs, p. 496).

FAMILY URINATORIDÆ. LOONS.

GENUS URINATOR CUVIER.

2. *Urinator arcticus* (Linn.). BLACK-THROATED LOON.

Illinois and Wisconsin, rare winter visitor (Nelson N. E. Ill., p. 150); Ohio, rare visitor (Wheaton, p. 565); Michigan, rare (Gibbs, p. 496).

FAMILY STERCORARIIDÆ. SKUAS AND JEGERS.

GENUS STERCORARIUS BRISSON.

3. *Stercorarius parasiticus* (Linn.). PARASITIC JEGER.
Illinois (Bull. Nutt. Orn. Club, Vol. V, p. 31).

FAMILY LARIDÆ. GULLS AND TERNS.

SUBFAMILY LARINÆ. GULLS.

GENUS RISSA STEPHENS.

4. *Rissa tridactyla* (Linn.). KITTIWAKE GULL.
Illinois and Wisconsin, rare winter visitor (Nelson N. E. Ill., p. 146); Ohio, rare winter visitor (Wheaton, p. 549); Michigan, rare (Gibbs, p. 495).

GENUS LARUS LINNÆUS.

5. *Larus marinus* Linn. GREAT BLACK-BACKED GULL.
Illinois, winter resident (Nelson, N. E. Ill., p. 145); Ohio, rare winter visitor (Wheaton, p. 547); Michigan, rare (Gibbs, p. 495).
6. *Larus argentatus* Brunn. HERRING GULL.
Illinois, rare winter visitor (Nelson, N. E. Ill., p. 145).
7. *Larus atricilla* Linn. LAUGHING GULL.
Illinois, rare summer visitor southward (Ridgway Cat., p. 202); Michigan, abundant (Gibbs, p. 495).

GENUS XEMA LEACH.

8. *Xema sabinii* (Sab.). SABINE'S GULL.
Illinois, rare winter visitor to Lake Michigan (Ridgway Cat., p. 202); Ohio, accidental on Lake Erie (Wheaton, p. 552).

SUBFAMILY STERNINÆ. TERNS.

GENUS GELOCHELIDON BREHM.

9. *Gelochelidon nilotica* (Hasselq.). GULL-BILLED TERN.
Illinois, rare summer visitor (Ridgway Cat., p. 202); Ohio, rare visitor northward (Wheaton, p. 552); Michigan, not rare summer visitor (Gibbs, p. 496).

GENUS STERNA LINNÆUS.

Subgenus THALASSEUS Boie.

10. *Sterna tschegra* Lepech. CASPIAN TERN.
Illinois, winter visitor (Ridgway Cat., p. 202); Michigan, accidental (Gibbs, p. 495).

Subgenus ACTOCHELIDON Kaup.

11. *Sterna maxima* Bodd. ROYAL TERN.
Illinois and Wisconsin, summer visitor (Ridgway, p. 202); Michigan, rare summer visitor (Gibbs, p. 495).

Subgenus STERNA LINNÆUS.

12. *Sterna paradisæa* (Brünn.). ARCTIC TERN.

Michigan, not common migrant (Gibbs, p. 496). It has been accredited to Ohio perhaps by mistake (Wheaton, p. 561).

FAMILY PHALACROCORACIDÆ. CORMORANTS.

GENUS PHALACROCORAX BRISSON.

Subgenus PHALACROCORAX.

13. *Phalacrocorax carbo* (Linn.). CORMORANT.

Given by Dr. Haymond, but more recently regarded as an error. Also reported from Ohio, but that is now considered an error (Wheaton, p. 545.; Michigan (?). Noted as doubtfully an occasional visitor (Gibbs, p. 495).

14. *Phalacrocorax mexicanus* (Brandt). MEXICAN CORMORANT.

Illinois (Bull. Nutt. Orn. Club, Vol. V., p. 31).

FAMILY PELECANIDÆ. PELICANS.

GENUS PELECANUS LINNÆUS.

Subgenus LEPTOPELICANUS RICHENBACH.

15. *Pelecanus fuscus* Linn. BROWN PELICAN.

Illinois (Bull. Nutt. Orn. Club, Vol. V, p. 31).

FAMILY FREGATIDÆ. MAN-O'-WAR BIRDS.

GENUS FREGATA CUVIER.

16. *Fregata aquila* (Linn.). MAN-O'-WAR BIRD.

Accidental in Ohio (Ridgway Manual, p. 83).

FAMILY ANATIDÆ. DUCKS, GEESE AND SWANS.

SUBFAMILY ANATINÆ. RIVER DUCKS.

GENUS ANAS LINNÆUS.

Subgenus MARECA STEPHENS.

17. *Anas penelope* Linn. WIDGEON.

Illinois and Wisconsin, rare (Nelson, N. E. Ills., p. 139).

Subgenus QUERQUEDULA STEPHENS.

18. *Anas cyanoptera* Vieill. CINNAMON TEAL.

Illinois, occasional visitor (Ridgway Cat., p. 199).

GENUS HISTRIONICUS LESSON.

19. *Histrionicus histrionicus* (Linn.). HARLEQUIN DUCK.

Illinois and Wisconsin, in winter (Nelson, N. E. Ills., p. 142); Ohio, mentioned by error (Wheaton, p. 535).

GENUS CAMPTOLAIMUS GRAY.

20. *Camptolaimus labradorius* (Gmel.). LABRADOR DUCK.

Formerly found in Michigan (Gibbs, p. 494); Great Lakes (Ridgway Manual, p. 107). Now very rare, if not extinct.

GENUS SOMATERIA LEACH.

Subgenus SOMATERIA:

21. *Somateria dresseri* Sharpe. AMERICAN EIDER.

Illinois and Wisconsin, in winter (Nelson, N. E. Ills., p. 142; Michigan, occasional (Gibbs, p. 495).

Subgenus ERIONETTA COUES.

22. *Somateria spectabilis* (Linn.). KING EIDER.

Illinois and Wisconsin, rare winter visitor (Nelson, N. E. Ills., p. 143; Ohio (Wheaton, p. 535).

GENUS OIDEMIA FLEMING.

Subgenus OIDEMIA.

23. *Oidemia americana* Sw. & Rich. AMERICAN SCOTER.

Illinois, winter resident (Nelson, N. E. Ills., p. 143); Michigan, rare (Gibbs, p. 495).

GENUS NOMONYX RIDGWAY.

24. *Nomonyx dominicus* (Linn.). MASKED DUCK.

A tropical species accidental in New York and Wisconsin (Ridgway Manual, p. 114).

SUBFAMILY ANSERINÆ. GEESE.

GENUS BRANTA SCOPOLI.

25. *Branta canadensis minima* Ridgw. CACKLING GOOSE.

Illinois (Bull. Nutt. Orn. Club. 1876, p. 41); Wisconsin (Ridgway Manual, 1887, p. 117).

FAMILY IBIDIDÆ. IBISES.

GENUS PLEGADIS KAUP.

26. *Plegadis autumnalis* (Hasselq.). GLOSSY IBIS.

Illinois, rare (Ridgway Cat., p. 192); Ohio, accidental (Wheaton, p. 498).

FAMILY ARDEIDÆ. HERONS, BITTERNS, ETC.

SUBFAMILY ARDEINÆ. HERONS AND EGRETS.

GENUS ARDEA LINNÆUS.

Subgenus ARDEA.

27. *Ardea rufa* Bodd. REDDISH EGRET.

Illinois, summer visitor southward (Nelson, S. Ill., p. 60).

FAMILY RECURVIROSTRIDÆ. AVOCETS AND STILTS.

GENUS HIMANTOPUS BRISSON.

28. *Himantopus mexicanus* (Müll.). BLACK-NECKED STILT.

Illinois and Wisconsin, rare (Nelson, N. E. Ills., p. 124); Ohio, rare (Wheaton, p. 463); Michigan, rare (Gibbs, p. 492).

FAMILY SCOLOPACIDÆ. SNIPES, SANDPIPERS, ETC.

GENUS MICROPALAMA BAIRD.

29. *Micropalama himantopus* (Bonap.). STILT SANDPIPER.

Illinois, rare (Ridgway Cat., p. 195); Ohio, rare (Wheaton, p. 471); Michigan (Gibbs, p. 492).

GENUS TRINGA LINNÆUS.

Subgenus TRINGA.

30. *Tringa canutus* Linn. KNOT; RED-BREASTED SANDPIPER.

Illinois (Ridgway Cat., p. 195); Ohio, rare migrant (Wheaton, p. 478); Michigan, rare (Gibbs, p. 492).

Subgenus ARQUATELLA BAIRD.

31. *Tringa maritima* Brünn. PURPLE SANDPIPER.

Illinois, rare (Ridgway Cat., p. 195); Ohio, rare (Wheaton, p. 476).

Subgenus ACTODROMAS KAUP.

32. *Tringa fuscicollis* Vieill. WHITE-RUMPED SANDPIPER.

Illinois and Wisconsin (Nelson, N. E. Ill., p. 127); Ohio, migrant (Wheaton, p. 475); Michigan, rare (Gibbs, p. 492).

33. *Tringa bairdii* (Coues). BAIRD'S SANDPIPER.

Illinois, (Ridgway Cat., p. 195); Ohio, migrant (Wheaton, p. 473).

GENUS PAVONCELLA LEACH.

34. *Pavoncella pugnax* (Linn.). RUFF.

A European species, accidental in Ohio (Wheaton, p. 489).

GENUS TRYNGITES CABANIS.

35. *Tryngites subruficollis* (Vieill.). BUFF-BREASTED SANDPIPER.

Illinois and Wisconsin (Nelson, N. E. Ill., p. 130); Ohio (Wheaton, p. 491); Michigan, rare (Gibbs, p. 493).

FAMILY TETRAONIDÆ. GROUSE, PARTRIDGES, ETC.

SUBFAMILY PERDICINÆ. PARTRIDGES.

GENUS COLINUS LESSON.

36. *Colinus virginianus floridanus* Coues. FLORIDA BOB-WHITE.

Common along the river vallies in Southern Illinois (Nelson, S. Ill., p. 43), perhaps found in the Lower Wabash Valley in Indiana.

SUBFAMILY TETRAONINÆ. GROUSE.

GENUS LAGOPUS BRISSON.

37. *Lagopus lagopus* (Linn.). WILLOW PTARMIGAN.

Illinois and Wisconsin, former resident (Nelson, N. E. Ill., p. 122); Michigan (Gibbs, p. 491).

GENUS PEDIOCÆTES BAIRD.

38. *Pediocætes phasianellus campestris* Ridgw. PRAIRIE SHARP-TAILED GROUSE.

Illinois, rare (Ridgway Cat., p. 191).

FAMILY FALCONIDÆ. VULTURES, FALCONS, HAWKS, ETC.

SUBFAMILY ACCIPITRINÆ. KITES, BUZZARDS, HAWKS, ETC.

GENUS ELANUS SAVIGNY.

39. *Elanus leucurus* (Vieill.). WHITE-TAILED KITE.

Illinois, breeds (Nelson, S. Ill., p. 46); Michigan, rare (Gibbs, p. 490).

GENUS BUTEO CUVIER.

40. *Buteo borealis calurus* (Cass.). WESTERN RED-TAILED HAWK.

Illinois (Ridgway Cat., p. 189; Michigan (Gibbs, p. 490).

41. *Buteo borealis krideri* Hoopes. KRIDER'S HAWK.

Illinois, accidental. (H. K. Coale, see Ridgway, Ills. Orn., p. 469).

42. *Buteo harlani* (Aud.). HARLAN'S HAWK.

Illinois (Ridgway Cat., p. 189).

43. *Buteo swainsoni* Bonap. SWAINSON'S HAWK.

Illinois (Ridgway Cat., p. 189); Michigan (Gibbs, p. 490). Given by Dr. Jordan as from Indiana (Manual, p. 113), but he informs us that this is an error.

GENUS ASTURNIA VIEILLLOT.

44. *Asturnia plagiata* Schlegel. MEXICAN GOSHAWK.

Illinois, accidental (Ridgway, Ill. Orn., p. 463).

GENUS ARCHIBUTEO BREHM.

45. *Archibuteo ferrugineus* (Licht.). FERRUGINOUS ROUGH-LEG.

Illinois, straggler (Ridgway, Ill. Orn., p. 482).

SUBFAMILY FALCONINÆ. FALCONS.

GENUS FALCO LINNÆUS.

Subgenus HIEROFALCO CUVIER.

46. *Falco mexicanus* Schleg. PRAIRIE FALCON.

Illinois, accidental (Ridgway, Ill. Orn., p. 431).

FAMILY BUBONIDÆ. HORNED OWLS, ETC.

GENUS NYCTALA BREHM.

47. *Nyctala tengmalmi richardsoni* (Bonap.). RICHARDSON'S OWL.

Has been taken in Illinois and Wisconsin (Ridgway, Ill. Orn., p. 413). It was reported from Indiana, but that, I am informed, is an error.

GENUS BUBO CUVIER.

48. *Bubo virginianus subarcticus* (Hoy). WESTERN HORNED OWL.
Illinois, occasional in winter (Ridgway, Ill. Orn., p. 421).

FAMILY PICIDÆ. WOODPECKERS.

GENUS PICOIDES LACEPEDE.

49. *Picoides arcticus* (Swains.). ARCTIC THREE-TOED WOODPECKER. BLACK-BACKED THREE-TOED WOODPECKER.
Illinois, rare winter visitor (Nelson, N. E. Ill., p. 115); Ohio, accidental (Wheaton, p. 397); Michigan, rare (Gibbs, p. 489).

FAMILY CAPRIMULGIDÆ. GOATSUCKERS, ETC.

GENUS CHORDEILLES SWAINSON.

50. *Chordeiles virginianus henryi* (Cass.). WESTERN NIGHTHAWK.
Illinois, occasional (Ridgway, Ill. Orn., p. 370.)

FAMILY TYRANNIDÆ. TYRANT FLYCATCHER.

GENUS MILVULUS SWAINSON.

51. *Milvulus tyrannus* (Linn.). FORK-TAILED FLYCATCHER.
A tropical species, accidental in Kentucky (Ridgway Manual, p. 327).
52. *Milvulus forficatus* (Gmel.). SCISSOR-TAILED FLYCATCHER.
Accidental in Missouri, New England, Manitoba, etc. (Ridgway Manual, p. 328).

GENUS SAYORNIS BONAPARTE.

53. *Sayornis saya* (Bonap.). SAY'S PHOEBE.
Illinois and Wisconsin (Nelson, N. E. Ill., p. 113); Michigan (Gibbs, p. 488).

FAMILY ALAUDIDÆ. LARKS.

GENUS ALAUDA LINNÆUS.

54. *Alauda arvensis* Linn. SKYLARK.
Ohio, introduced in the vicinity of Cincinnati, but it seems doubtful if it will succeed in establishing itself in this country. (Langdon, Journ. Cin. Soc. Nat. Hist., Vol. I., 1878, p. 111.)

FAMILY CORVIDÆ. CROWS, JAYS, MAGPIES, ETC.

SUBFAMILY GARRULINÆ. MAGPIES AND JAYS.

GENUS PICA BRISSON.

55. *Pica pica hudsonica* (Sab.). AMERICAN MAGPIE.
Illinois and Wisconsin, a former winter visitor (Nelson, N. E. Ills., p. 112); Michigan (?) (Ridgway Manual, p. 352).

GENUS PERISOREUS BONAPARTE.

56. *Perisoreus canadensis* (Linn.). CANADA JAY.

Illinois and Wisconsin, former winter visitor (Nelson, N. E. Ills., p. 113; Michigan, breeds (Gibbs, p. 488); has been reported from Ohio, but that is an error. (Wheaton, p. 366).

FAMILY ICTERIDÆ. BLACKBIRDS, ORIOLES, ETC.

GENUS STURNELLA VIEILLLOT.

57. *Sturnella magna neglecta* (Aud.). WESTERN MEADOW LARK.

Illinois (Ridgway, Ills. Orn., p. 318); Michigan (Gibbs, p. 488).

GENUS SCOLECOPHAGUS SWAINSON.

58. *Scolecophagus cyanocephalus* (Wagl.). BREWER'S BLACKBIRD.

Illinois, straggler (Ridgway, Ills. Orn., p. 324).

FAMILY FRINGILLIDÆ. FINCHES, SPARROWS, ETC.

GENUS ACANTHIS BECHSTEIN.

59. *Acanthis hornemannii exilipes* (Coe). HOARY REDPOLL.

Illinois, rare winter visitor (Ridgway, Ills. Orn., p. 232); Michigan (Gibbs, p. 486).

GENUS SPINUS KOCH.

60. *Spinus notatus* (Du Bus). BLACK-HEADED GOLDFINCH.

A Mexican and Central American species, accidental in Kentucky (Ridgway Manual, p. 400).

GENUS RHYNCHOPHANES BAIRD.

61. *Rhynchophanes maccownii* (Lawr.). MCCOWN'S LONGSPUR.

Illinois, straggler (Ridgway, Ills. Orn., p. 246).

GENUS ZONOTRICHIA SWAINSON.

62. *Zonotrichia querula* (Nutt.). HARRIS'S SPARROW.

Illinois and Wisconsin, rare winter visitor (Ridgway, Ills. Orn., p. 267).

63. *Zonotrichia leucophrys intermedia* Ridgw. INTERMEDIATE SPARROW.

Wisconsin, accidental (Nelson, N. E. Ills., p. 107).

64. *Zonotrichia coronata* (Pall.). GOLDEN-CROWNED SPARROW.

Wisconsin, accidental (Nelson N. E. Ills., p. 108).

GENUS JUNCO WAGLER.

65. *Junco hyemalis oregonus* (Townsend). OREGON JUNCO.

Illinois (Ridgway Cat., p. 180); Michigan, rare (Gibbs, p. 487).

GENUS PIPILO VIEILLOT.

66. *Pipilo maculatus arcticus* (Swains.). ARCTIC TOWHEE.
Wisconsin, two specimens (Nelson, N. E. Ills., p. 110).

GENUS HABIA REICHENBACH.

67. *Habia melanocephala* (Swains.). BLACK-HEADED GROSBEEK.
Michigan, very rare (Gibbs., p. 487).

GENUS PASSERINA VIEILLOT.

68. *Passerina ciris* (Linn.). PAINTED BUNTING.
Illinois, accidental (Ridgway, Ills. Orn., p. 302).

FAMILY VIREONIDÆ. VIREOS.

GENUS VIREO VIEILLOT.

Subgenus VIREO.

69. *Vireo bellii* Aud. BELL'S VIREO.
Illinois, summer resident in prairie districts (Ridgway, Ills. Orn., p. 190-191).

FAMILY MNIOTILTIDÆ. WOOD WARBLERS.

GENUS HELMINTHOPHILA RIDGWAY.

70. *Helminthophila leucobronchialis* (Brewst.). BREWSTER'S WARBLER.
A rare and peculiar Warbler, found in Eastern U. S., west into Michigan (Gibbs., p. 483; Ridgway Manual, p. 486).

71. *Helminthophila cincinnatiensis* (Langd.). CINCINNATI WARBLER.
Only known from one specimen from Cincinnati, O. (Journ. Cin. Soc. Nat. Hist., July, 1880, p. 119-120). This is supposed to be a hybrid between *Helminthophila pinus* and *Oporornis formosa* (Bull. Nutt. Orn. Club, Vol. V, 1880, p. 237).

GENUS DENDROICA GRAY.

Subgenus DENDROICA.

72. *Dendroica kirtlandi* Baird. KIRTLAND'S WARBLER.
Very rare species, known from but few localities in the United States as spring migrant. Has been taken in Ohio and Michigan (Wheaton, p. 263; Gibbs., p. 484). Also in Missouri and Wisconsin.

FAMILY TROGLODYTIDÆ. WRENS, THRUSHES, ETC.

SUBFAMILY TROGLODYTINÆ. WRENS.

GENUS TROGLODYTES VIEILLOT.

Subgenus TROGLODYTES.

73. *Troglodytes ædon aztecus* (Baird.). WESTERN HOUSE WREN.
Illinois, rare. (Ridgway Cat., p. 173.) Prof. J. A. Allen thinks the Mississippi and Ohio Valley form referable to this rather than *ædon* proper. (The Auk, 1888, p. 164.)

FAMILY PARIDÆ. NUTHATCHES AND TITS.

SUBFAMILY SITINÆ. NUTHATCHES.

GENUS SITTA LINNÆUS.

74. *Sitta pusilla* Lath. BROWN-HEADED NUTHATCH.
Ohio and Michigan, accidental. (Wheaton, p. 226.)

SUBFAMILY PARINÆ. TITMICE.

GENUS PARUS LINNÆUS.

Subgenus PARUS.

75. *Parus hudsonicus* Forst. HUDSONIAN CHICKADEE.
Illinois, accidental. (Ridgway Ills. Orn., p. 82); Michigan, (Ridgway Manual, p. 564.)

FAMILY TURDIDÆ. THRUSHES, SOLITAIRES, BLUEBIRDS, ETC.

SUBFAMILY MYADESTINÆ. SOLITAIRES.

GENUS MYADESTES SWAINSON.

76. *Myadestes townsendii* (Aud.). TOWNSEND'S SOLITAIRE.
Illinois, accidental northward. (Nelson, N. E. Ill., p. 94.)

SUBFAMILY TURDINÆ. THRUSHES.

GENUS TURDUS LINNÆUS.

Subgenus HYLOCICHLA Baird.

77. *Turdus fuscescens salicicolus* (Ridgw.). WILLOW THRUSH.
Illinois, rare migrant. (H. K. Coale, Ridgway, Orn., p. 56.)
78. *Turdus aliciaë bicknelli* (Ridgw.). BICKNELL'S THRUSH.
Illinois, rare in spring. (Ridgway, Ills. Orn., p. 59.)

GENUS SIALIA SWAINSON.

79. *Sialia arctica* (Swains.). MOUNTAIN BLUEBIRD.
Iowa, accidental. (Nelson, N. E. Ills., p. 95.)

The following species have been reported from a range which would seem to include Indiana, but should properly be excluded from the Hypothetical List:

1. *Colymbus cristatus* Lath. CRESTED GREBE.
An Old World species wrongfully accredited to America.
2. *Buteo buteo* (Linn.). EUROPEAN BUZZARD.
A European species attributed to Michigan. Perhaps an error.

LIST OF PERSONS CONTRIBUTING NOTES USED IN THE PREPARATION OF THIS
CATALOGUE.

The following persons have in various ways assisted in collecting the notes from which I have prepared this list. For their kindness I am thankful, and shall be pleased to be favored in future as in the past with information pertaining to Indiana Ornithology:

Prof. J. A. Allen	American Museum of Natural History, New York, N. Y.
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B. T. Gault	Chicago, Ill.
J. Grafton Parker	Chicago, Ill.
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